

SYLLOGE FUNGORUM

OMNIUM HUCUSQUE COGNITORUM

DIGESSIT

P. A. SACCARDO

VOL. XVII.

SUPPLEMENTUM UNIVERSALE

Pars VI.

HYMENOMYCETÆ-LABOULBENIOMYCETÆ

AUCTORIBUS

P. A. SACCARDO ET D. SACCARDO FIL.

ADJECTA EST BIBLIOTHECA MYCOLOGICA AUCTORE J. B. TRAVERSO

Fol. 69 — Pretium it. lib. (francs) 69

PATAVII

Die 25 Maji MCMV.

SUMPTIBUS P. A. SACCARDO

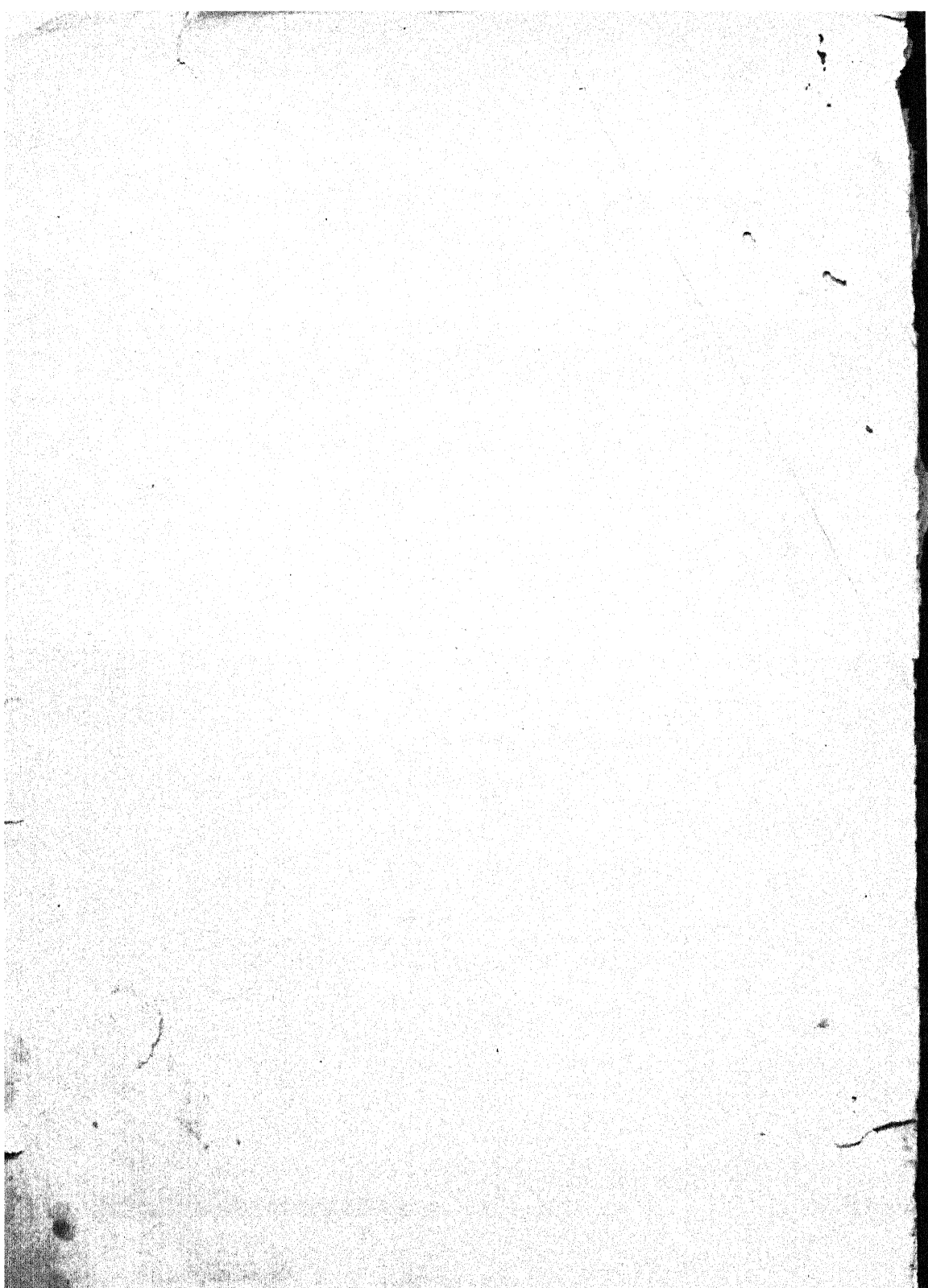
TYPIS SEMINARI

Iterum impressum

apud

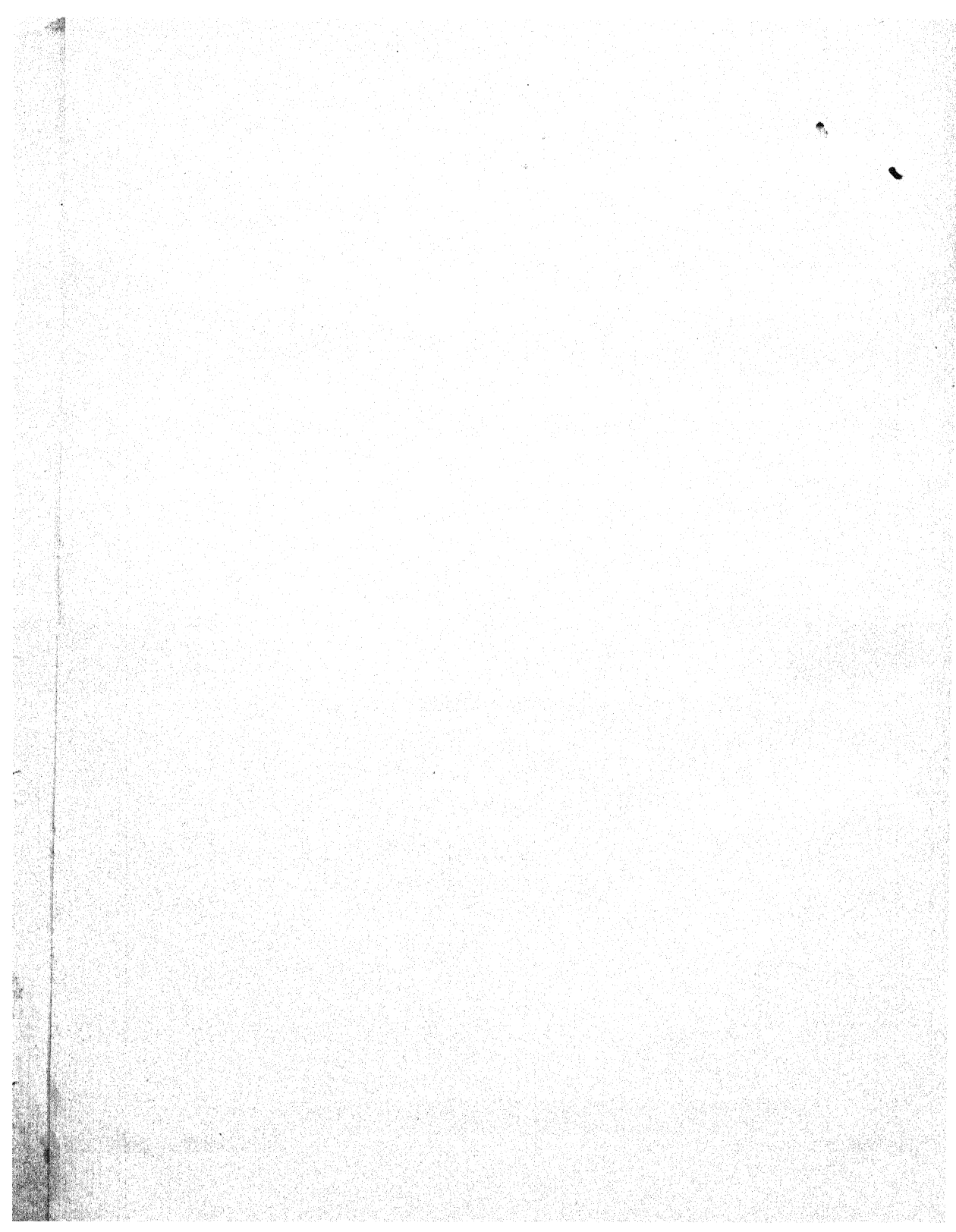
R. Friedländer & Sohn

Berlin



PLÆ MEMORIÆ
AUGUSTI NAPOLEONIS BERLESE

BOTANICES PROFESSORIS
DE SCIENTIA MYCOLOGICA
TAM SYSTEMATICA QUAM BIOLOGICA
MERITISSIMI
MYCETUM DELINEATORIS EXQUISITI
AMICI OPTIMI
HEU PRÆMATURE EREPTI
VOLUMEN HOC SYLLOGES
MÆRENTES
DEDICANT AUCTORES



PRÆMONITUS

Vix triennium elapsum est post editum hujus operis volumen XVI, et novum, adjuvante Filio, est mihi in lucem proferendum. Sperabam, messem totam mycetum, per triennium ultimum collectam et evulgatam, in unum volumen me posse compellere, sed acquisitiones novæ, præcipue ex America australi et centrali, potissimum vero ex feracissima Brasilia, tam magnæ fuerunt ut materiam in volumina duo dividere coactus sim. Collectores et descriptores non pauci validam operam dederunt, sed duo imprimis honoris causa memorandi sunt: E. ULE, mycetum brasiliensium innumerorum strenuus collector, et P. HENNINGS, eorum indefessus illustrator. Nec parum contulerunt ad molem specierum augendam monographia Uredinearum Sydowiana et contributiones ad mycologiam Luxemburgensem a complorato J. FELTGENIO († XI Majo 1904) editæ.

Proponente cl. professore G. LINDAU, species plurimas Ascomycetum in Lichenibus parasiticas et hucusque tantum in libris lichenologicis, heu plerumque nimis breviter descriptas, suis locis addidi et sæpius ad subgenera propria, generibus affiniorebus adjecta, accensere enisus sum *).

Septendecim species novæ in hoc volumine primitus descriptæ occurrunt, quarum elenchus mox sequitur **).

Potavii XV April. MCMV

P. A. SACCARDO

*) Cfr. infra p. 586, nota.

**) Cum hodie sæpe disseritur de usu litterarum majuscularum v. minuscularum ad initium nominum plantarum specificorum, liceat exponere normas, quæ mihi magis propriæ videntur.

I. Littera majuscula initialis adhibenda est ad specifica tam substantiva quam adjectiva ex viris derivata. Exempla: *Anixia Bresadola*, *Leptosphaeria Rehmiana*.

II. Eadem in substantivis regionum, matricum atque generum vel vernaculorum, quæ tamquam specifica adhibentur. Exempla: *Polyporus Venezuela*, *Sphaerella Chrysanthemi*, *Hypomyces Trichoderma*, *Amanita Coccola*.

III. Littera minuscula initialis adhibenda est ad cetera adjectiva specifica etiam geographica et substantiva communia, quæ similitudinis gratiâ sumuntur. Exempla: *Clavaria flava*, *Agaricus campester*, *Zignoëlla sardoa*, *Venturia montelliea*, *Therrya gallica*, *Leptosphaeria doliolum*, *Heterosphaeria patella*.

SPECIES FUNGORUM IN HOC VOLUMINE PRIMITUS DESCRIPTÆ

- | | |
|---|--|
| <p>Anulographum anaxæum Sacc. et D.
Sacc. p. 895.</p> <p>Diaporthe (Chorostate) italica Trav.
p. 671.</p> <p>Eutypella Padi (Karst.) Sacc. v. pirina
Sacc. et Flag. p. 564.</p> <p>Gnomonia pusilla Sacc. et Flag. p. 664.</p> <p>— rigniacensis Sacc. et Flag. p. 666.</p> <p>Henningsomyces pulchellus Sacc. p. 689.</p> <p>Leptosphæria aquilana D. Sacc. p. 724.</p> <p>Massaria marginata Fuck. v. aquilana
D. Sacc. p. 792.</p> | <p>Nectria Bonanseana Sacc. p. 786.</p> <p>Pistillaria Ferryi Quél. et F. *P. tremula Sacc. p. 202.</p> <p>Septobasidium Mariani Bres. p. 204.</p> <p>Sphærella Cuboniana D. Sacc. p. 638.</p> <p>— elatior S. et Sp. v. apula Sacc.
p. 636.</p> <p>Valsella Saccardoi Berl. p. 587.</p> <p>— Glechomæ Sacc. et Fl. p. 642.</p> <p>— montellica Sacc. p. 645.</p> <p>Uredo Nicotianæ Anast. Sacc. et Sp.
p. 440.</p> |
|---|--|
-

Botanici qui quocumque modo « Syllogi » v. mycologicae scientiae profuerunt *)

(Continuatio. Cfr. vol. VIII p. IX, X p. V, XI p. VII, XIV p. V, XVI p. V)

- | | |
|--|---|
| ABBADO M. (<i>Milano</i>) | DA CAMARA, DE SOUZA M. (<i>Lisboa</i>) |
| ALBINI A. (<i>Roma</i>) | D'ALMEIDA, VERISSIMO J. (<i>Lisboa</i>) |
| ALLIN N. (<i>Iowa</i>) | DARBISHIRE O. W. (<i>Manchester</i>) |
| ANASTASIA E. (<i>Scafati</i>) | DASSONVILLE CH. (<i>Paris</i>) |
| ANDERSON W. (<i>Montana</i>) | DEARNES J. (<i>London, Ont.</i>) |
| APPEL O. (<i>Charlottenburg</i>) | DE FRANCISCIS F. (<i>Napoli</i>) |
| BALDRATI J. (<i>Asmara, Erythraea</i>) | D'IPPOLITO G. (<i>Modena</i>) |
| BANDI W. (<i>Bern</i>) | DUSS R. P. (<i>Guadeloupe</i>) |
| BANDMANN S. (<i>Breslau</i>) | ENGELKE C. (<i>Hannover</i>) |
| BANKER H. J. (<i>Williamsport, Pa.</i>) | FAUTREY F. (<i>Corrombles, Côte d'Or</i>) |
| BARSAI E. (<i>Pisa</i>) | FERGUSON M. C. (<i>Ithaca</i>) |
| BARTELETTI V. (<i>S. Pietro al Natisone</i>) | FERRY R. (<i>St. Dié, Vosges</i>) |
| BEARDSLEE H. C. (<i>Cleveland, O.</i>) | GÉRARD W. R. (<i>New York</i>) |
| BEIJERINCK M. W. (<i>Delft</i>) | GLÜCK H. (<i>Heidelberg</i>) |
| BELLI S. (<i>Cagliari</i>) | HARZ C. O. (<i>München</i>) |
| BLAKESLEE A. F. (<i>Cambridge, Mass.</i>) | HEDGCOCK G. G. (<i>St. Louis, Mo.</i>) |
| BONANSEA S. (<i>Mexico</i>) | HEINSEN E. (<i>Hamburg</i>) |
| BRINKMANN W. (<i>Lengerich</i>) | HENNEBERG W. (<i>Berlin</i>) |
| BRUNTHALER J. (<i>Wien</i>) | HITCHCOCK A. S. (<i>Washington</i>) |
| BRZEZINSKI J. (<i>Krakau</i>) | HÖRNEL FR. (VON) (<i>Wien</i>) |
| BUSCALIONI L. (<i>Sassari</i>) | HOLLÓS L. (<i>Kecskemet</i>) |
| CARLETON M. A. (<i>Washington</i>) | HOLTERMANN C. (<i>Berlin</i>) |
| CAZZANI A. (<i>Guastalla</i>) | HÖYE KR. (<i>Bergen</i>) |
| CELAKOVSKY L. (<i>Prag</i>) | ISSATSCHENKO B. (<i>St. Pétersbourg</i>) |
| CHIAMENTI A. (<i>Chioggia</i>) | ISTVÁNNFI G. (DE) (<i>Budapest</i>) |
| CHODAT R. (<i>Genève</i>) | IWANOFF K. S. (<i>St. Pétersbourg</i>) |
| CLINTON G. P. (<i>Champaign, Ill.</i>) | JACOBASCH E. (<i>Jena</i>) |
| COBB N. A. (<i>Sydney</i>) | JARIUS M. (<i>Berlin</i>) |
| CONSTANTINEANU J. C. (<i>Jassy</i>) | JOHNSTON J. R. (<i>Cambridge Mass.</i>) |
| COPELAND E. B. (<i>Morgantown, W. Va.</i>) | JOHOW FR. (<i>Santiago</i>) |
| CUPINÓ L. (<i>Napoli</i>) | KABÁT J. E. (<i>Welwarn</i>) |
| CUNNINGHAM D. D. (<i>Calcutta</i>) | KIRCHNER O. (<i>Hohenheim b. Stuttgart</i>) |
| DA CAMARA PESTANA J. (<i>Lisboa</i>) | KLÖCKER A. (<i>Copenhagen</i>) |

*) Plurimi ex citatis botanicis opera v. opuscula mycologica benevole miserunt, quibus sequē ac prius laudatis editor devinctissimus gratias agit.

KOLKWITZ R. (*Berlin*)
 KONING C. J. (*Bussum*)
 LACAILLE A. (*Bolbec*)
 LAUBERT R. (*Poppelsdorf b. Bonn*)
 LAZARO E. (*Lisboa*)
 LEMÉE E. (*Alençon*)
 LEMMERMAN E. (*Bremen*)
 LINDNER P. (*Charlottenburg b. Berlin*)
 LISTER A. (*Leytonstone*)
 LONG W. H. (*Austin, Ka.*)
 LUTZ L. (*Paris*)
 MAGNAGHI A. (*Lomello, Pavia*)
 MARCHAND L. (*Thiais, Seine*)
 MARQUAND E. D. (*Guernsey*)
 MATTEI G. E. (*Napoli*)
 MAYR H. (*München*)
 MEGLIOLA G. (*Roma*)
 MESCHINELLI L. (*Vicenza*)
 MILESI M. (*Brescia*)
 MILLSPAUGH CH. F. (*Chicago*)
 MIYABE K. (*Tokyo*)
 MONTALDINI C. (*Lisciano*)
 MÜLLER-THURGAU H. (*Schloss Wüdensweil*)
 MURRILL W. A. (*Ithaca*)
 NEGER F. (*München*)
 NEMEC C. (*Prag*)
 NEPI C. (*Ancona*)
 NOACK FR. (*Gernsheim*)
 NOMURA H. (*Tokyo*)
 OLIVER F. W. (*London*)
 OLIVIER E. (*Moulins*)
 PAMPALONI I. (*Firenze*)
 PANTANELLI E. (*Modena*)
 PAOLI G. (*Roma*)
 PAVILLARD J. (*Montpellier*)
 PELAGATTI M. (*Parma*)
 PELLEGRINI P. (*Pisa*)

PEREIRA COUTINHO M., DE FRANCA (*Lisboa*)
 PETTIT R. H. (*Bladwinville, N. Y.*)
 PHILIPPI F. (*Santiago*)
 POTTER M. C. (*Newcastle-upon-Tyne*)
 PRAIN D. (*Seehpore near Calcutta*)
 RACIBORSKI M. (*Dublany*)
 REINHARDT M. O. (*Berlin*)
 RICKER P. L. (*Washington*)
 RUMM C. (*Stuttgart*)
 SAVASTANO L. (*Portici*)
 SCHELLENBERG H. C. (*Zürich*)
 SCHWARZ FR. (*Eberswalde*)
 SERRA A. (*Napoli*)
 SULLA R. (*Polu*)
 SPAULDING P. (*St. Louis*)
 SPLENDORÉ A. (*Scafati*)
 STARITZ R. (*Gröbzig*)
 STRUNCK H. F. (*Viktoria, Kamerun*)
 STUART W. (*La Fayette*)
 TANAKA Y. (*Tokio*)
 TAYLOR TH. (*Washington*)
 TEPPER J. G. O. (*Adelaide*)
 THESLEFF A. (*Helsingfors*)
 TISCHUTKIN N. (*St. Petérsbourg*)
 TORREND C. (*Lisboa*)
 TURCONI M. (*Pavia*)
 UGOLINI U. (*Brescia*)
 VAN BREDÁ (*Java*)
 VAN DELDEN (*Def.*)
 VANHA J. J. (*Brünn*)
 VOLKART A. (*Zürich*)
 WAGNER G. H. (*Schmilka*)
 WAKKER J. H. (*Java*)
 WATERS L. L. (*Manhattan, Ka.*)
 WHITE V. S. (*Connecticut*)
 WILCOX E. M. (*Auburn, Ala*)
 WOODS A. F. (*Washington*)

BIBLIOTHECA MYCOLOGICA

SEU CATALOGUS LIBRORUM QUI IN DIGERENDA SYLLOGE

PRAESTO FUERUNT

SUPPLEMENTUM ALTERUM

(Cfr. vol. I p. ix et vol. X p. xi *)

DIGESSIT DOCT. J. B. TRAVERSO

- Abbado M.** — Monografia dei generi *Allescherina* e *Cryptovalsa* (Malp., XVII, 41 pgg., in-8) Genova 1902.
- Aderhold R.** — Revision der Species: *Venturia chlorospora*, *inequalis* und *ditricha* Auctorum (Hedwig, XXXVI, pag. 67-83, 1 Taf., in-8) Dresden 1897.
- Ueber den Vermehrungspilz, sein Leben und seine Bekämpfung (Gartenflora, 1897; 13 pgg., in-8) Berlin 1897.
- Aducco A.** — Il cancro della Canapa (Italia agricola, XXXIII, pgg. 400-402, figg., in-8) Piacenza 1896.
- Albini A.** — Di un fungo nuovo per l'Italia (Malp., VIII, pgg. 302-303, in-8) Genova 1894.
- Albini A. et Pirotta R.** — Cfr. *Pirotta*.
- Allescher A.** — Ueber einige aus Südbayern bisher nicht l. kannte Pilze (Bot. Centralbl. 1887, pgg. 12-19, in-8) Cassel 1887.
- Verzeichnis der bisher in Südbayern beobachteten Peronosporaceen (XI Berichte d. bot. Vereins in Landshut, 17 pgg., in-8) Landshut 1889.
- Verzeichnis in Südbayern beobachteter Pilze. III Abth. (Ber. Bot. Vereins in Landshut; 136 pgg. in-8) Landshut 1892.
- Allescher A.** — Verzeichnis in Südbayern beobachteter Pilze (Berichte Bayer. Bot. Gesellsch., Bd. II, pgg. 12-19, in-8) München 1892.
- Verzeichnis für Südbayern neu aufgefundenen Pilze (Jahresb. Bayer. Bot. Gesellsch., Bd. I) München 1891.
- Beitrag zur Flora von Halle a. S. (Hedw., XXXIII, pgg. 123-126, in-8) Dresden 1894.
- Einige für das südliche Bayern neue Sphaeropsideen, Melanconieen und Hyphomyceten (Hedw. XXXIII, pgg. 70-75, in-8) Dresden 1894.
- Diagnosen der in der IV Centurie der Fungi bavarii exsiccati ausgegebenen neuen Arten (Allg. Botan. Zeitschr., 1895; 6 pgg. in-8) Karlsruhe 1895.
- Mykologische Mittheilungen aus Südbayern (Hedw. XXXIV, pgg. 256-290, in-8) Dresden 1895.
- Eine Bemerkung zu *Diaporthe tessella* (Allg. Bot. Zeitschr., 1896; 1 pag. in-8) Karlsruhe, 1896.

*) Cfr. Nota, vol. X p. xi.

- Allescher A.** — Diagnosen einiger neuer, im Jahre 1895 gesammelter Arten bayerischer Pilze aus der Abteilung der Fungi imperfecti (Ber. Bayer. Bot. Gesellsch., Bd. IV, pgg. 31-40, in-8) München 1896.
- Diagnosen einiger neuer, meist im Jahre 1896 gesammelter Arten bayerischer Pilze, nebst Bemerkungen über einige kritische Arten (Ber. Bay. Bot. Gesellsch., Bd. V; 13 pgg. in-8) München 1897.
- Verzeichnis in Südbayern beobachteter Pilze. IV (Ber. XV Bot. Ver. in Landshut; 188 pgg., in-8) Landshut 1898.
- Fungi imperfecti (*Sphaeropsidaceae*) in Rabenhorst's Kryptogamen-Flora, II, Aufl. Leipzig 1898-1903.
- Allescher A. et Hennings P.** — Pilze aus dem Umanakdistrikt (15 pgg., in-4) 1892.
- Allescher A. et Schnabl J. N.** — Fungi bavarici exsiccati Cent. VI (Hedw. XXXVI, pgg. 174-175, in-8) Dresden 1897.
- Allin N. et Mc. Bride.** — Cfr. *Mc. Bride*.
- Alpe V., Briosi G. et Menozzi A.** — Cfr. *Briosi*.
- Anastasia E.** — Dell' *Erysiphe lamprocarpa* Lév. for. *Nicotianae* Comes e sua forma conidiofora di *Oidium* (Boll. Coltivaz. Tabacchi Ist. Scafati, I; 12 pgg., in-8, 1 tav.) Portici 1903.
- Anderson W. et Ellis J. B.** — Vedi *Ellis*.
- Appel O.** — Zur Kenntnis der Ueberwinterung des *Oidium Tuckeri* (Centralbl. Bakt. etc. II Abt., Bd. XI; 3 pgg., in-8, figg.) Jena 1903.
- Appel O. et Strunk H. F.** — Ueber einige in Kamerun auf *Theobroma Cacao* beobachtete Pilze (Centralbl. f. Bakt. etc., II Abt., Bd. XI; 12 pgg., in-8, figg.) Jena 1903.
- Acangeli G.** — Sopra una malattia della Vite (Nuov. Giorn. Bot. it., IX, pgg. 74-82: in-8, 1 tav.) Pisa 1877.
- Arcangeli G.** — Sulla *Fistulina hepatica* Fr. (N. Giorn. Bot. it., X, pgg. 369-374, in-8, 1 tav.) Pisa 1878.
- Brevi notizie sopra alcune Agaricidie (Bull. Soc. Bot. it. 1892, pgg. 172-176, in-8) Firenze 1892.
- Sopra alcune Agaricidie (Bull. Soc. Bot. it., 1892, pg. 158-162, in-8) Firenze 1892.
- Sopra una mostuosità del *Lentinus tigrinus* (N. Giorn. Bot. it., n. ser., II, pgg. 57-62, in-8, 1 tav.) Firenze 1895.
- Sugli avvelenamenti causati dai funghi e sui mezzi più efficaci per prevenirli (Atti Acc. Georgof. XXI, 25 pgg., in-8) Firenze 1898.
- Sopra tre casi di avvelenamento per funghi, sull' *Amanita verna* e sui provvedimenti da prendersi contro i funghi tossici (Proc. verb. Soc. tosc. Sc. Nat., 1898; 10 pgg. in-8) Pisa 1898.
- Una rapida escursione a Moncioni ed a Brolio (N. Giorn. Bot. it., n. ser., VI, pgg. 88-90, in-8) Firenze 1899.
- Sopra vari funghi raccolti nell'anno 1898 (Bull. Soc. Bot. it., 1899, pgg. 16-22, in-8) Firenze 1899.
- Sulla tossicità del *Pleurotus olearius* (Proc. verb. Soc. tosc. Sc. Nat. 1899, 6 pgg., in-8) Pisa 1899.
- L' *Oidium leucoconium* ed un *Cicinobolus* sulle foglie dell' *Evonymus japonicus* (Proc. verb. Soc. tosc. Sc. Nat. 1900, 3 pgg., in-8) Pisa 1900.
- Archer W.** — On two new species in Saprolegniæ, referable respectively to the genus *Saprolegnia* and *Achyla* (Journ. of Microsc. Sc., VII, pgg. 121-127, in-8, 1 pl.) London 1867.
- Arthur J. C.** — Additions to the Cryptogamic-Flora of Indiana (Pro-

- ceed. Indiana Acad. of Sc., 1896, 3 pgg. in-8) Indianapolis 1896.
- Arthur J. C. — Formalin for prevention of Potato Scab (Perdue University Agr. Exp. Stat., Bull. 65, vol. VIII, pgg. 19-36, in-8, 2 pl.) La Fayette 1897.
- The Movement of protoplasm in Coenocytic Hyphae (Ann. of Bot., XLIV, pgg. 491-507, in-8) London 1897.
- The common *Ustilago* of Maize (Bot. Gazette, 1897, pgg. 44-46, in-8) Chicago 1897.
- Indiana plant rusts listed in accordance with latest nomenclature (Proceed. Indiana Acad. of Sc. 1898, pgg. 174-186, in-8) Indianapolis, 1898.
- The Asparagus rust (Ann. Rep. (13) of Indiana Agr. Exp. Stat., pg. 10-14, in-8) La Fayette 1900.
- Damping off of Beets in the field (ibid. pgg. 15-16, in-8) La Fayette 1900.
- Formalin and hot water as preventives of Loose Smut of Wheat (ibid. pgg. 17-24, in-8) La Fayette 1900.
- Chrysanthemum Rust (Perdue University Agr. Exper. Stat., Bull. 85, vol. X, pgg. 143-150, in-8) La Fayette 1900.
- New species of Uredineæ I (Bull. Torr. Bot. Club., 28, pg. 661-666, in-8) New York 1901.
- An edible Fungus (Rep. 14 Indiana Agric. Exper. Stat., 2 pgg., in-8, 2 pl.) La Fayette 1902.
- Problems in the study of plant-rusts (Bot. Soc. of America, publicat. 22, 18 pgg., in-8) Lancaster 1902.
- Cultures of Uredineæ in 1900 and 1901 (Journ. of Mycol., 8, pgg. 51-56, in-8) Columbus 1902.
- The Uredineæ occurring upon *Phragmites*, *Spartina* and *Arundinaria* in America (Bot. Gazette XXXIV, 20 pgg., in-8, figg.) Chicago 1902.
- Arthur J. C. — Clues to relationship among heteroecious plant rusts (Bot. Gaz. XXXIII, pgg. 62-66, in-8) Chicago 1902.
- New species of Uredineæ II (Bull. Torr. Bot. Club., 29 pgg. 227-231, in-8) New York 1902.
- Cultures of Uredineæ in 1902 (Bot. Gaz. XXXV, pgg. 10-23, in-8) Chicago 1903.
- The *Æcidium* as a device to restore vigor to the fungus (23 ann. Meet. Soc. f. promotion of Agric. Science, 4 pgg. in-8) s. l., 1903.
- The genus *Puccinia* (Proc. Indiana Ac. of Sci. 1902, pgg. 81-88, in-8) Indianapolis 1903.
- Cultures of Uredineæ in 1903 (Journ. of Mycol. X, pgg. 8-21, in-8) Columbus 1903.
- New species of Uredineæ III (Torr. Bot. Club, 31; 8 pgg., in-8) New York 1904.
- Arthur J. C. et Bolley H. L. — Bacteriosis of Carnations (Perdue Univ. Agr. Exp. Stat., Bull. n. 59, vol. VII, pgg. 17-29, in-8, 8 pl.) La Fayette 1896.
- Arthur J. C. et Golden K. E. — Diseases of the sugar beet root (ibid., bull. n. 39, vol. III, pgg. 54-62, in-8, 1 pl.) La Fayette 1892.
- Arthur J. C. et Holway E. W. D. — Descriptions of American Uredineæ (Bull. Lab. Nat. Hyst. Univers. Iowa, vol. III-V) Iowa 1895-1902:
- I (vol. III, pgg. 44-57, in-8, 3 pl.)
- II (vol. IV, pgg. 377-402, in-8, 9 pl.)
- III (vol. V, pgg. 171-193, in-8, 4 pl. et figg.)
- IV (vol. V, pgg. 311-334, in-8, 9 pl.)
- et — Violet rusts of North America (Minnesota Bot. Stud. 1901, p. 631-641, in-8, 1 pl.) Minnesota 1901.
- Arthur J. C. et Stuart W. — Corn

- Smut (Ann. Rep. (12) Indiana Agr. Exp. Stat. for 1898-99, pgg. 84-135, in-8, 4 pl. et figg.) La Fayette 1900.
- Ascherson P. — Beitrag zur Flora Aegyptens (Sitzungsb. bot. Ver. Prov. Brandenburg, XXI, pgg. 63-74, in-8) Berlin 1879.
- Mittheilungen (Ibid., XXII, pgg. 123-137 et XXIV, pgg. 22-28, in-8) Berlin 1880-1882.
- Ascherson P. et Magnus P. — Die Verbreitung der Farbenvariationen saftiger Ericaceen-Früchte und der *Vaccinium* und *Rhododendron* bewohnenden *Sclerotinia*-Arten (Mittheil. Bayer. Bot. Gesell. 1893, 3 pgg., in-8) München 1893.
- Atkinson G. F. — A new Anthracnose of the Privet -- and -- Note on the *Cercospora* of Celery blight. (Cornell Univ. Agric. Exp. Stat., bull. n. 49, pagg. 306-316, in-8, figg.) Ithaca 1892.
- Steps toward a revision of the li-nosporous species of North American graminicolous *Eypocreaceae* (Bull. Torr. Bot. Club, 21, pgg. 222-225, in-8) New York 1894.
- Damping Off (Cornell Univ. Agr. Exp. Stat., bull. n. 94, pagg. 233-272, in-8, fig.) Ithaca 1895.
- Some fungi from Alabama, collected chiefly during the years 1889-1892 (Bull. Cornell Univ. (Science) vol. III, pgg. 1-50, in-8) Ithaca 1897.
- Studies and illustrations of Mushrooms. I (Cornell Univ. Agr. Exp. Stat., bull. n. 138, pgg. 337-366, in-8, figg.) Ithaca 1897.
- Studies etc. II (Ibid., bull. n. 168, pagg. 493-516, figg.) Ithaca 1899.
- Three new genera of the higher fungi: *Eomycella*, *Eotrefezia*, *Dicthybole* (Bot. Gazette XXXIV, pgg. 36-43, in-8, figg.) Chicago 1902.
- Preliminary Notes on some new species of Fungi (Journ. of. Mycol., VII, pgg. 110-119, in-8) Columbus 1902.
- Atkinson G. F. — Preliminary Note on two new genera of Basidiomycetes (Ibid. pgg. 106-107, in-8) Columbus 1902.
- A new species of *Geaster* (Bot. Gazette, XXXVI, pgg. 303-305, in-8, figg.) Chicago 1903.
- A new species of *Calostoma* (Journ. of Mycol. IX, pgg. 14-17, in-8) Columbus 1903.
- The genus *Harpochytrium* in the United States (Annal. Mycol. I, pgg. 479-503, in-8, 1 pl.) Berlin-Potsdam 1903.
- Note on the genus *Harpochytrium* (Journ. of Mycol. X, pgg. 3-8, in-8, 1 pl. et figg.) Columbus 1904.
- Audouin V. — Recherches anatomiques et physiologiques sur la maladie contagieuse qui attaque les Vers à soie, et qu'on désigne sous le nom de « Muscardine ». (Ann. Sc. Nat. 2^e ser. - Zool. t. VIII, pgg. 229-245, in-8, 2 pl.) Paris 1836.
- Baccarini P. — Appunti per la biologia del *Coniothyrium Diplodiella* (Malp. II, pgg. 325-337, in-8) Messina 1888.
- Sopra un curioso cecidio della *Caparis spinosa* (Malp. VII, pgg. 405-414, in-8, 1 tav.) Genova 1893.
- Il Mal nero della Vite: *Dacillus vitivorus* Bacc. (Staz. Sper. Agr. ital. XXV, pgg. 444-517, in-8, 5 tav.) Modena 1893.
- Sul Mal nero delle Viti (Bull. Soc. Bot. it., 1894, pgg. 228-237, in-8) Firenze 1894.
- Sulla « Petecchia » o « Vaiolo » degli Agrumi (Ibid. pgg. 224-228) Firenze 1894.
- Intorno ad una malattia della Palma da datteri (Bull. Soc. Bot. it.

- 1895, pgg. 196-203, in-8) Firenze 1895.
- Baccarini P.** — Sopra alcuni microrganismi del disordine di Melilli. Nota prelim. (Boll. Acc. Gioenia Sc. Nat., LXIV, 4 pgg., in-8) Catania 1900.
- Appunti biologici intorno a due *Hypomyces* (N. Giorn. Bot. it., n. ser., vol. IX, 16 pgg., in-8) Firenze 1902.
- Sopra i caratteri di qualche *Endogone* (*Ibid.*, X, 16 pgg. in-8) Firenze 1903.
- Noterelle micologiche (*Ibid.*, XI, pgg. 416-422, in-8, 1 tav.) Firenze 1904.
- Baglietto Fr.** — Materiali per la micologia italiana (Comm. Soc. Critt. ital. II, pgg. 261-265, in-8) Genova 1865.
- Baldrati I.** — Di due micromiceti scoperti nel Ferrarese, nuovi per la flora italica (Bull. Soc. Bot. it. 1897, pgg. 244-246, in-8) Firenze 1897.
- La melanosia delle Viti americane (L'Italia agricola, XXXVI, pgg. 564-566, in-8, 1 tav.) Piacenza 1899.
- Balsamo G. et De Notaris G.** — Enumerazione delle piante crittogame non descritte nella Flora crittogamica . . . del Dott. Ciro Pollini (Bibliot. ital. LXIX e LXX) Milano, 1882-1883.
- Bambecke Ch. (van)** — Hyphes vasculaires du mycélium des Autobasidiomycètes (Acad. roy. Belgique, Mem. cour. d. savants étrang.; 30 pgg., in-8, 4 pl.) Bruxelles 1894.
- Note sur une forme monstrueuse de *Ganoderma lucidum* (Bot. Jaarboek 1895, pgg. 98-116, 2 pl.) Gand 1895.
- Description d'un mycélium membraneux (Bot. Jaarb. Dodonæa VIII, pgg. 121-144, in-8, 4 pl.) Gand 1896.
- Note sur *Lentinus suffrutescens* (Brot.) Fr. (Bull. Soc. Myc. Fr., XVI, 8 pgg., in-8, 1 pl.) Paris 1900.
- Bambecke Ch. (van)** — Sur une monstruosité du *Boletus luteus*, suite de parasitisme (Bull. Soc. roy. Bot. de Belgique, XXXIX, pgg. 7-20, in-8, 1 pl.) Gand 1900.
- Le *Coccobotrys xylophilus* (Fr.) Boud. et Pat. est le mycélium de *Lepiota meleagris* (Sow.) Sacc. — et — Quelques remarques touchant *Lepiota meleagris* (Bull. Soc. Bot. Belg., XXXIX, pgg. 81-88, in-8, 1 pl.) Gand 1900.
- Le mycélium de *Lepiota meleagris* (Mém. Acad. roy. Belg., t. LIV, 57 pgg., in-8, 7 pl.) Bruxelles 1902.
- Sur un exemplaire monstrueux de *Polyporus sulfureus* (Bull. Soc. Myc. Fr. XVIII, 12 pgg. in-8, 3 pl.) Paris 1902.
- Sur la présence de cristalloïde chez les Autobasidiomycètes (Bull. Acad. roy. Belg. 1902, 24 pgg., in-8, 1 pl.) Bruxelles 1902.
- Sur l'évolution nucléaire et la sporulation chez *Hydnangium carneum* (Mém. Acad. roy. Belg. 1903, 44 pgg., in-8, 3 pl.) Bruxelles 1903.
- Bandi W.** — Beiträge zur Biologie der Uredineen (Hedw. XLII, 36 pagg., in-8.) Dresden 1903.
- Banker H. J.** — A preliminary contribution to a knowledge of the *Hydnaceæ* (Bull. Torr. Bot. Club, 28, pgg. 199-222, in-8) New York 1901.
- Barbey W.** — Floræ Sardoæ Compendium (265 pgg., in-4, 7 tav.) Lausanne 1884.
- Bargellini D.** — Lettre accompagnant l'envoy du *Battarrea Guicciardiana* de Florence (Bull. Soc. Bot. Fr. XXIV, pgg. 306-307, in-8) Paris 1877.
- Barker B. T. P.** — A fragrant « *Mycoderma* » - Yeast, *Saccharomyces anomalus* Hans. (Ann. of Botany, XIV, pgg. 215-244, in-8) London 1900.

- Barker B. T. P.** — A Conjugating «Yeast» (Proceed. roy. Soc., 68, pgg. 345-348, in-8) London 1901.
- Barla J. B.** — Aperçu mycologique et catalogue des Champignons observés dans les environs de Nice (vol. in-4, 68 pgg. con 4 tav.) Nice 1858.
- Liste des Champignons nouvellement observés dans le département des Alpes-Maritimes (Bull. Soc. Myc. de Fr. I, pgg. 189-194, in-8) Epinal 1885.
- Liste des Champignons etc. (*Ibid.*, II, pg. 112-119, in-8) Autun 1886.
- Baroni E.** — Noterelle crittogamiche (Bull. Soc. Bot. ital. 1892, pgg. 243-245, in-8) Firenze 1892.
- Baroni E. et Del Guercio G.** — Sulla infezione prodotta nelle Fragole dalla *Sphaerella Fragariae* Sacc. (Nuovo Giorn. Bot. it., n. ser., vol. I, pgg. 208-216, in-8) Firenze 1894.
- et — Rimedii contro la infezione prodotta sulle Rose dalla *Sphaerotheca pannosa* (Bull. Soc. Bot. it. 1894, pgg. 253-256, in-8) Firenze 1894.
- Barsali E.** — Conspectus Hymenomycetum agri pisani (Bull. Soc. Bot. it. 1903, 2 pgg. in-8) Firenze 1903.
- Bartelatti V.** — Sopra una singolare alterazione della corteccia di *Pterosperrum platanifolium* (Nuovo Giorn. Bot. it., n. ser., X, 13 pgg., in-8) Firenze 1903.
- Bartholomew E.** — The Kansas Uredineae, including some new species of miscellaneous Kansas Fungi (Trans. Kansas Acad. Sc. XVI, pgg. 169-196, in-8) Topeka 1899.
- Bartholomew E. et Ellis J. B.** — Cfr. *Ellis*.
- Bary A. (de)** — Cfr. *De Bary*.
- Bataille F. et Quélet L.** — Cfr. *Quélet*.
- Baudmann S.** — Ueber die Pilzvegetation aus den Breslauer Kanalwässern (Jahresb. Schles. Gesell.

- f. vaterl. Cultur, 1894, 5 pgg., in-8) Breslau 1895.
- Bäumler J. A.** — Zur Pilzflora Niederösterreichs VI (Verh. zool.-bot. Gesell. Wien 1893, pgg. 89-106, in-8) Wien 1893.
- Ueber einige kaukasische Pilze (Österr. bot. Zeitschr. 1896, 4 pgg., in-8) Wien 1896.
- Beiträge zur Kryptogamen-Flora des Pressburger Comitates. Die Pilze. (Verh. Vereins f. Nat. und Heilkunde in Pressburg 1897, pgg. 129-206, in-8) Pressburg 1897.
- Fungi novi Herbarii Musei Palatini Vindobonensis (Annal. Naturhist. Hofmus., Bd. XIII, pgg. 438-442, in-8, 1 Taf.) Wien 1899.
- Notiz über *Brefeldia* (Verh. zool.-bot. Gesellsch. Wien 1899, 2 pgg., in-8) Wien 1899.
- Beiträge zur Kryptogamen-Flora des Pressburger Comitates (Verh. Vereines f. Nat. - und Heilkunde Pressburg, Bd. XIV, n. F.; 60 pgg., in-8) Pressburg 1902.
- Bay J. C.** — The Spore-forming species of the genus *Saccharomyces* (American Naturalist, XXVII, pgg. 685-696, in-8) Salem, 1893.
- Beardslee H. C.** — Notes on the Amanitas of the southern Appalachians I: subgenus *Amanitopsis* (Lloyd Library, 8 pgg., in-8, 3 pl.) Cincinnati 1902.
- Beauverie J.** — Sur le polymorphisme de l'appareil conidien du *Sclerotinia Fuckeliana*, le *Botrytis cinerea* et la maladie de la toile (Ann. Soc. Bot. Lyon, XXIV, 24 pgg., in-8), Lyon 1899.
- Études sur le polymorphisme des Champignons. Influence du milieu (1 vol. in-8) Paris 1900.
- Beck v. Mannagetta G. R.** — Ueber eine neue Krankheit unserer Radieschen (Sitzungsab. deutsch. na-

- turw.-medic. Ver. Böhmen «Lotos», 1899, n. 8; 3 pgg. in-8) Prag 1899.
- Beck v. Mannagetta G. R.** — Ueber das Vorkommen des auf der Stubenfliege lebenden *Stigmatomyces Baerii* Peyr. in Böhmen (*Ibid.* 1903, n. 3; 2 pgg., in-8) Prag 1903.
- et alii — Schedæ ad «Kryptogamas exsiccatas» editæ a Museo Palatino Vindobonensi (Ann. Naturhist. Hofmus. IX. et seq.) Wien 1894 et seq.
- Behrens J.** Ueber den Schwamm der Tabaksetzlinge (Zeitschr. Pflanzenkr. II, pgg. 327-332, in-8) Stuttgart 1892.
- Beijerinck M. W.** — Recherches sur la maladie de gomme chez les plantes (Arch. Néerl. XIX, pg. 43-102, in-8, 2 pl.) Harlem 1884.
- Beijerinck M. W. et Delden A. (van)** — Ueber die Assimilation des freien Stickstoffs durch Bakterien (Centralbl. Bakter. etc., IX, pgg. 3-43, in-8) Jena 1902.
- Belli S.** — Addenda ad floram sardoam (Bull. Soc. Bot. it. 1903, 2 pgg., in-8) Firenze 1903.
- Belli S. et Mattiolo O.** — Cfr. *Mattiolo*.
- Berkeley M. J.** — British Fungi (1 vol. in-8) London 1836.
- Fungi of New Zeland and Tasmania. 1860.
- Hybernation of Fungi. The genus *Sclerotium* (Intellectual Observer, I, pgg. 288-294, in-8, figg.) London 1862.
- The fungus foot of India (*Ibid.* II, pgg. 248-257, in-8, figg.) London 1863.
- A new british fungus (*Ibid.*, V; 3 pgg., in-8, 1 pl.) London 1864.
- Egg parasites and their relatives (*Ibid.* V, pgg. 147-153, in-8, 1 pl.) London 1864.
- Notes on Fungi II. White-spored Mushrooms (*Ibid.* VII, pg. 163-167, in-8, 1 pl.) London 1865.
- Berkeley M. J.** — Truffles and Morels (*Ibid.* IX, pgg. 28-33, in-8, 1 pl.) London 1866.
- Egg fungi (*Ibid.* IX, pgg. 401-406, in-8, 2 pl.) London 1866.
- Notes on Fungi V. Ferruginous-spored Agarics (*Ibid.*, IX, pgg. 93-98, in-8, 1 pl.) London 1866.
- On two new british fungi (Trans. Linn. Soc. XXV, pgg. 431-432, in-4, 1 pl.) London 1866.
- Two new fungi (Journ. of Bot. 1876, pgg. 248-249, in-8, figg.) London 1876.
- Notices of north-american fungi (200 pgg., in-8, ex Grevillea) London 1872-1876.
- On underground Fungi (Fungi hypogæi) London 1881.
- On the thread blight of Tea (Journ. Micr. Sc. XV, pgg. 131-133, in-8, figg.) London, 1875.
- Berlese Am.** — Rapporti fra la Vite ed i Saccaromiceti (Riv. pat. veg., V, pgg. 211-237, 263-282, 295-342, 354-360; VI pgg. 1-20, 21-44, in-8, figg.) Firenze 1896-97.
- Prove di fermentazione del mosto con fermenti non provenienti direttamente dall'uva (Staz. Sper. Agr. it., XXX, pgg. 513-536, in-8) Modena 1897.
- Berlese Ant. et Mottareale G.** — Cfr. *Mottareale*.
- Berlese Aug. N.** — La diffusione delle spore dei funghi a mezzo dei piccoli Artropodi (Bull. Soc. Ven.-Trent. Sc. Nat., III, pgg. 83-89, in-8) Padova 1883.
- Intorno allo sviluppo di due nuovi Ipocreacei (Malpighia, V, pgg. 336-418, in-8, 3 tav.) Genova 1892.
- Rapporti tra *Dematophora* e *Rosellinia* (Riv. Pat. Veg. I, pgg. 3-17 et 33-46, in-8, 3 tav.) Padova 1892.

- Berlese Aug. N.** — Sur le développement de quelques champignons nouveaux ou critiques (Bull. Soc. Myc. Fr., VIII, pgg. 94-112, in-8, 2 pl.) Paris 1882.
- Descrizione di alcuni nuovi generi di Pirenomiceti (Atti Congr. bot. Genova 1892, pgg. 567-576, in-8, 1 tav.) Genova 1893.
 - Osservazioni critiche sulla *Cercospora Vitis* (Riv. Pat. veg. I, pgg. 258-264, in-8) Padova 1893.
 - Sopra una nuova malattia fungina del Leccio (Riv. Pat. veg. I, pgg. 285-295, in-8) Avellino 1893.
 - Note sulla Peronospora della Vite (*Ibid.* II, pgg. 109-110) Avellino 1893.
 - Il seccume del Castagno (*Ibid.* II, pgg. 194-226, 3 tav.) Avellino 1893.
 - Una nuova malattia del Fico (*Ibid.* II, pgg. 251-253, in-8) Avellino 1893.
 - Relazione sulla infezione della peronospora in Italia nel 1893 e sui risultati della lotta intrapresa allo scopo di combattere il parassita (*Ibid.* II, pgg. 337-384, in-8) Avellino 1894.
 - I parassiti vegetali delle piante coltivate o utili (vol. in-8, di pgg. I-XVI e 1-216, figg.) Milano 1894.
 - Un nuovo marciume dell'insalata (Riv. Pat. veg., III, pgg. 839-842, in-8) Avellino 1895.
 - Prima contribuzione allo studio della morfologia e biologia di *Cladosporium* e *Dematium* (*Ibid.*, IV, pgg. 3-45, in-8, 6 tav.) Firenze 1895.
 - I funghi diversi dai Saccaromiceti e capaci di determinare la fermentazione alcoolica (Giorn. di Vite. ed Enol. di Avellino, 1895, pag. 52 et seq.) Avellino 1895.
 - *Saccharomyces* e *Dematium* (Riv. Pat. veg., V, pgg. 74-81, in-8) Firenze 1896.
 - La classificazione dei Pirenomiceti ed il « Saggio sui prevedibili funghi futuri » del prof. P. A. Saccardo (*Ibid.*, V, pgg. 361-364, in-8) Firenze 1896.
- Berlese Aug. N.** — Sulla struttura e sviluppo della *Pileolaria Terebinthi* e sulla sua apparsa in Italia (*Ibid.*, V, pgg. 287-294, fig.) Firenze 1896.
- Nuovi studi sulla malattia del frumento sviluppatasi nel 1895 in Sardegna (*Ibid.*, V, pag. 88) Firenze 1896.
 - Le malattie del Gelso (*Ibid.*, V, pgg. 98-107 e 196-210, in-8) Firenze 1896.
 - Studi citologici sui funghi. I (*Ibid.*, VI, pgg. 66-75, in-8, 2 tav.) Firenze 1897.
 - Ueber die Befruchtung und Entwickelung der Oosphäre bei den Peronosporaceen (Jahrb. wissensch. Bot. XXXI, pgg. 159-196, in-8, 4 Taf.) Berlin 1897.
 - Saggio di una monografia delle Peronosporacee (Riv. Pat. veget., VI, pgg. 78-101 et 237-269, VII, pgg. 19-37, IX, pgg. 1-126, X, pgg. 185-298, in-8, figg.) Firenze 1897-1900.
 - Studi citologici sui funghi. II (Riv. Pat. veg. VII, pgg. 148-152, in-8, 1 tav.) Firenze 1898.
 - Il *Cladochytrium Violæ* Berl. e la malattia che produce (*Ibid.*, VII, pgg. 167-172, in-8, fig.) Firenze 1899.
- Berlese A. N. et Peglion V.** — Micromiceti toscani (N. Giorn. Bot. it. XXIV, pgg. 97-172, in-8, 2 tav.) Firenze 1892.
- Berlese A. N. et Roumeguère C.** — Champignons nouveaux du Tonkin (Revue Mycol. X, pgg. 75-78, in-8, 1 pl.) Toulouse 1888.
- Berlese A. N. et Saccardo P. A.** — Cfr. *Saccardo P. A.*
- Bernátsky J.** — Beiträge zur Kenntnis der endotrophen Mykorrhizen (Természeti Füzetek XXII, pgg. 88-110, 2 tab.) Budapest 1899.

- Bertoloni G.** — Osservazioni posteriori intorno alla malattia del falchetto (N. Giorn. Bot. it., X, pgg. 374-383, in-8, 1 tav.) Pisa 1878.
- Bertoloni A. nep.** — Nuovo *Oidium* del Lanroceraso (*Ibid.*, XI, pgg. 389-394, in-8) Pisa 1879.
- Sul parassitismo dei funghi (*Ibid.*, XII, pgg. 19-24, in-8) Pisa 1880.
- Billet A. et Giard A.** — Cfr. *Giard*.
- Billings F. H.** — Ueber Stärke corrodirende Pilze und ihre Beziehung zu *Amylotrogus* Roze (Flora, Bd. 87, pgg. 288-298, in-8, 2 Taf) Marburg 1900.
- Binz C.** — Ueber Pilze in arzneilichen Flüssigkeiten (Wiener Medizin. Presse 1880; 7 pgg., in-8) Wien 1880.
- Bischoff G. W.** — Kryptogamen-Kunde (1 vol. in-8) Leipzig 1860.
- Blakeslee A. F.** — Zygosporo formation a sexual process (Science, n. ser., XI, 5 pgg., in-8) New York 1901.
- Blónski F.** — Wyniki Poszukowań Florystycznych Skrytokwiatowich (Pamiętnika. Fizyograficznego, X, 30 pgg. in-8) Warszawa 1890.
- Symbolæ ad floram mycologicam Poloniæ (*Ibid.*, XIV, pgg. 63-93, in-8) Warszawa 1896.
- Blume et Nees ab Esenbeck Th. F. L.** — Cfr. *Nees*.
- Blytt A.** — Bidrag til kundskaben om Norges soparter. III. Myxomyceter (Christ. Vidensk.-Selsk. Forhandl. 1892; 13 pgg., in-8) Christiania 1892.
- Bidrag etc. IV (*ibid.*, 1896, 75 pgg., in-8) Christiania 1896.
- Bokorny Th.** — Ueber die Abhängigkeit der Assimilationsthätigkeit der Hefe von verschiedenen äusseren Einflüssen (Centralbl. Bakt. etc. 1902, pgg. 52-62, in-8) Jena 1902.
- Bolley H. L. et Arthur J. C.** — Cfr. *Arthur*.
- Bolley H. L. et Field M.** — A special apparatus for bacteriological sampling of well waters (Microscop. Journ. 1895, 4 pgg., in-8, figg.) London 1895.
- Bolton J.** — Geschichte der merkwürdigsten Pilze (4 vol. in-8) Berlin 1795-1799.
- Bommer J. E. et Rousseau M.** — Fungi in « Primitiæ Floræ Costaricensis » (Bull. Soc. Bot. Belg. t. XXXV, pgg. 151-166, in-8) Gand 1896.
- et — Note préliminaire sur les Champignons recueillis par l'Expedition antarctique belge (Bull. Acad. roy. Belg. 1900, pgg. 640-646, in-8) Bruxelles 1900.
- Bonansea S.** — Contribution à l'étude de quelques maladies cryptogamiques des céréales cultivées au Mexique (Mem. y Rev. Soc. Cient. A. Alzate 1903, pgg. 125-133 et 136-142, in-8) Mexico 1902.
- Bonorden H. F.** — Zur Kenntnis einiger der wichtigsten Gattungen der Coniomyeten und Cryptomyeten (1 vol. in-8) Halle 1860.
- Borch M. (de)** — Cfr. *De Borch*.
- Borzi A.** — *Burgellinia*, nuovo ascomicete dell'orecchia umana (Malp. II, pgg. 469-476, in-8) Messina 1889.
- Boudier E.** — Des champignons au point de vue de leurs caractères usuels, chimiques et toxicologiques (Ac. Imp. Médec. de Paris, 1866; 136 pgg., in-8, pl.) Paris 1866.
- Sur une anomalie remarquable de l'*Agaricus maculatus* (Bull. Soc. Bot. Fr. 1872, pgg. 141-148, in-8, 1 pl.) Paris 1872.
- Nouvelles espèces de Champignons de France (*Ibid.*, XXVIII, pgg. 91-98, in-8, 2 pl.) Paris 1881.
- Description de deux nouvelles espèces de Discomycètes du genre *Lachnea* (Bull. Soc. Sc. Nat. Ouest Fr.,

- VII, pgg. 147-150, in-8, 1 pl.) Nantes 1897.
- Boudier E.** — Nouvelles espèces ou variétés de champignons de France (Bull. Soc. Myc. Fr. XIII, 10 pgg., in-8, 3 pl.) Lons-le Saunier 1897.
- Révision analytique des Morilles de France (*Ibid.*, XIII, 27 pgg., in-8) Lons-le-Saunier 1897.
- Sur deux nouvelles espèces d'Ascoholés et observations sur l'*Urnula Craterium* récemment découverte en France (*Ibid.*, XIV, 7 pgg., in-8, 1 pl.) Lons-le-Saunier 1898.
- Sur les rapports qui existent entre l'évolution et les divers organes des Champignons et ceux des Phanérogames (Cpt. rend. Congr. Soc. savantes en 1898; 20 pgg., in-8) Paris 1898.
- Note sur un cas de formation de chapeaux secondaires sur un pédicule du *Ganoderma lucidum* (Bull. Soc. Myc. Fr. XV; 4 pgg. in-8) Lons-le-Saunier 1899.
- Note sur quelques champignons nouveaux des environs de Paris (*Ibid.*, XV, 8 pgg., in-8, 2 pl.) Lons-le-Saunier 1899.
- Description d'une nouvelle espèce d'*Excobasidium* parasite de l'*Asplenium filix-fœm.* — et — Note sur le *Tricholoma colossium* Fr. (*Ibid.*, XVI, 8 pgg., in-8, 1 pl.) Lons-le-Saunier 1900.
- Champignons nouveaux de France (*Ibid.*, XVIII, 10 pgg., in-8, 3 pl.) Paris 1902.
- Observations sur quelques-unes des principales espèces d'Amanites (*Ibid.*, XVIII, 23 pgg., in-8, 1 pl.) Paris 1902.
- Boudier E. et Fischer E.** — Rapport sur les espèces de champignons trouvées pendant l'assemblée à Genève et les excursions faites en Valais par les Sociétés de botanique de France et de Suisse du 5 au 15 août 1894 (Bull. Soc. Bot. Fr., XLI, pgg. CCXXXVII-CCXLIX, in-8) Paris 1894.
- Boudier E. et Patouillard N.** — Note sur deux nouvelles espèces de champignons des environs de Nice (Journ. de Bot., II, pgg. 445-446, in-8, 1 pl. pr. p.) Paris 1888.
- Boulanger E.** — Sur le polymorphisme du genre *Sporotrichum Maydis* (Rev. gen. Bot. VII, 12 pgg., in-8, 4 pl.) Paris 1895.
- Sur une forme conidienne nouvelle dans le genre *Chaetomium* (*Ibid.*, IX, 10 pgg., in-8, 3 pl.) Paris 1897.
- Développement et polymorphisme du *Volutella Scopula* (*Ibid.*, IX, 6 pgg., in-8, 1 pl.) Paris 1897.
- Les mycelium truffiers blancs (23 pgg. in-4, 3 pl.) Paris 1903.
- Germination de l'ascospore de la Truffe (20 pgg., in-4, 2 pl.) Paris 1903.
- Boyer G.** — Observations sur une Théléphorée vivant sur la Vigne: *Helicobasidium purpureum* (Ann. Ecole Agric. Montpellier, VIII; 9 pgg., in-8, 2 pl.) Montpellier 1895.
- Boyer G. et Jaczewski A. (de)** — Matériaux pour la flore mycologique des environs de Montpellier (*Ibid.*, 1894, 48 pgg., in-8, figg.) Montpellier 1894.
- Braun J.** — Botanischer Bericht über die Flora von Kamerun (Mitth. deutsch. Schutzgebieten 1889, 36 pgg., in-8) Berlin 1889.
- Breda J. (van)** — Rood-rot en andere ziekten in Het Suikerriet (Meded. v. Het Proefst. v. Suikerr. in West-Java; 38 pgg. 8) Semarang 1892.
- Brefeld O.** — Mykologische Mittheilungen (Sitzungsb. Gesell. naturf. Freunde Berlin 1876, 38 pgg., in-8) Berlin 1876.
- Ueber Entomophthoreen und ihre

- Verwandten (*Ibid.*, 1877, 18 pgg., in-8) Berlin 1877.
- Brefeld O. — Ueber die Bedeutung des Lichtes für die Entwicklung der Pilze (*Ibid.*, 1877, pgg. 127-136, in-8) Berlin 1877.
- Der Reis-Brand und der Setaria-Brand, die Entwicklungsglieder neuer Mutterkornpilze (Botan. Centrabl. LXV, 11 pgg. in-8) Cassel 1896.
- Bresadola J. — Discomycetes nonnulli tridentini novi (Rev. Mycol. IV, pgg. 211-212, in-8) Toulouse 1892.
- Inenomiceti nuovi (Bull. Soc. Bot. it. 1892, pgg. 196-197, in-8) Firenze 1892.
- Fungi aliquot novi saxonici (Hedw. 1892, pgg. 40-41, in-8) Dresden 1892.
- Funghi dello Seioa e della Colonia Eritrea (Ann. Ist. Bot. Roma V, 7 pgg., in-4, 1 tav.) Roma 1893.
- Fungi aliquot saxonici novi. II (Hedw. 1893, pgg. 32-33 in-8) Dresden 1893.
- Mycetes australienses novi, et emendanda ad floram mycologicam Australiæ (Hedw. 1893, pgg. 118-119, in-8) Dresden 1893.
- Di due specie interessanti di funghi della flora micologica italiana (Atti Accad. Agiati, XI, 7 pgg., in-8, 2 tav.) Rovereto 1893.
- Fungi aliquot saxonici novi vel critici. III (Hedw. XXXIII, pgg. 206-210, in-8) Dresden 1894.
- Sul *Lactarius sanguifluus* Paul. (Bull. Soc. Bot. it. 1895, pgg. 35-38, in-8) Firenze 1895.
- Fungi aliquot saxonici novi. IV (Hedw. XXXV, pgg. 199-201, in-8) Dresden 1896.
- Fungi brasilienses lecti a Dr. Alfredo Möller (Hedw. XXXV, pgg. 276-302, in-8) Dresden 1896.
- Alcuni funghi della Somalia e della Colonia Eritrea (Ann. Ist. Bot. Roma, VI, pgg. 177-180, in-4) Roma 1897.
- Bresadola J. — Genus *Mölleria* Bres. critica disquisitum (Bull. Soc. Bot. it. 1897, pgg. 291-292, in-8) Firenze 1897.
- Di una nuova specie di Uredinea: *Melampsora Gelmtii* (*Ibid.*, pgg. 74-75) Firenze 1897.
- Hymenomyces hungarici kmetiani (Atti Acc. Agiati, ser. III, vol. III, pgg. 66-120, in-8) Rovereto 1897.
- Fungi aliquot saxonici novi. V (Hedw. XXXVI, pgg. 381-382, in-8) Dresden 1897.
- I funghi mangerecci e velenosi dell'Europa media (vol. in-8, pgg. I-XV et 1-136, 109 tav.) Milano 1899.
- Fungi aliquot saxonici novi. VI (Hedw. XXXIX, p. 325-328, in-8) Dresden 1900.
- Hymenomyces fuegiani (K. Vetenensk.-Akad. Förhandl. 1900, pgg. 311-316, in-8) Stockholm 1900.
- Mycetes lusitanici novi (Atti Acc. Agiati, ser. III, vol. VIII, 11 pgg., in-8, 1 tav.) Rovereto 1902.
- Diagnoses fungorum novorum (Broteria, II, pgg. 87-92, in-8) Lisboa 1903.
- Fungi polonici a cl. viro B. Eichler lecti (Ann. mycol. I, pgg. 65-131, in-8) Berlin-Potsdam 1903.
- Bresadola J. et Cavara F. — Manipolo di funghi di Terraacina (N. Giorn. Bot. it., n. ser., vol. VII, pgg. 311-315, in-8, 1 tav.) Firenze 1900.
- et — Funghi di Vallombrosa II (*Ibid.*, VIII, 26 pgg., in-8) Firenze 1901.
- Bresadola J., Hennings P. et Magnus P. — Cfr. *Hennings*.
- Bresadola J. et Saccardo P. A. — Enumerazione dei funghi della Vallesia raccolti dall' Ab. A. Carestia:

- I (Malp. XI, pgg. 241-325, in-8) Genova 1897.
- II (Malp. XIII, pgg. 425-452, in-8) Genova 1899.
- Bresadola J. et Saccardo P. A.** — *Fungi Congoenses* (Bull. Soc. Bot. Belg., XXXVIII, pgg. 152-168, in-8, 5 tab.) Bruxelles 1899.
- et — Cfr. *Saccardo P. A.*
- Breton A. (Le)** — Cfr. *Le Breton*.
- Briard M.** — Catalogue des Herbiers du Musée de la ville de Troyes (Mem. Soc. Acad. de l'Aube, LVIII; 119 pgg., in-8) Troyes 1895.
- Brick C.** — Ueber *Nectria cinnabarina* (Tode) Fr. (Jahrb. Hamburgisch. Wissensch. Anstalt. X, 14 pgg., in-8) Hamburg 1893.
- Briganti V.** — Istoria di una nuova specie di fungo della famiglia degli Agarici... etc. (Atti Acc. Sc. fis. e mat. Napoli, III, 16 pgg., in-4, tav.) Napoli 1842.
- Brinkmann W.** — Vorarbeiten zu einer Pilzflora Westfalens. I Nachtrag (XXVI Jahreshb. Westfal. Prov.-Ver. f. Wiss. u. Kunst, pgg. 126-133, in-8) Münster 1893.
- Briosi G.** — Rassegne crittogamiche. (Continuatio) Roma 1892-1904.
- Alcune erborizzazioni nella Valle di Gressoney (At. Ist. Bot. Pavia, II, pgg. 41-55, in-8) Milano 1890.
- Briosi G. et Farneti R.** — Intorno all'avvizzimento dei germogli del Gelso. Nota preliminare (Rend. Acc. Lincei, cl. Sc., ser. V, vol. X, pgg. 61-64, in-4) Roma 1901.
- et — Intorno ad un nuovo tipo di Licheni a tallo conidifero etc. (Atti Ist. Bot. Pavia, VIII, 17 pgg., in-8, 2 tav.) Milano 1902.
- et — Sopra una grave malattia che deturpa i frutti del Limone in Sicilia. Nota preliminare (4 pgg. in-8) Pavia 1902.
- et — Intorno alla *ruggine bianca* dei Limoni: parte I: i frutti (At. Ist. Bot. Pavia, vol. X, 60 pgg., in-8, 11 tav.) Milano 1904.
- Briosi G. et Farneti R.** — Sull'avvizzimento dei germogli del Gelso. 2^a nota preliminare (At. Ist. Bot. Pavia, vol. X, 4 pgg., in-8) Milano 1904.
- Briosi G., Menozzi A. et Alpe V.** — Studio dei metodi intesi a combattere il *brusone* nel Riso (*Ibid.*, IV, pgg. XLIV-LXXVIII, in-8, fig.) Milano 1897.
- Britzelmayr M.** — Hymenomyceten aus Südbayern. (Cont.) Augsburg 1889-1894.
- Brizi U.** — Prime indagini intorno ad una nuova malattia del Granoturco osservata in Roma (Boll. Not. Agr. XV, II, pgg. 563-561, in-8) Roma 1893.
- Sul *Cycloconium oleaginum* Cast. (Bull. Soc. Bot. it. 1894, pgg. 185-188, in-8) Firenze 1894.
- Due nuove specie del genere *Pestalozzia* (*Ibid.*, 1895, pgg. 81-83, in-8) Firenze 1895.
- Micromiceti nuovi per la flora romana (*Ibid.*, 1895, pgg. 93-101, in-8) Firenze 1895.
- Sulla *brunissure* o annerimento delle foglie della Vite (Staz. Sper. Agr. it., XXVIII; 19 pgg., in-8, 1 tav.) Modena 1895.
- Una nuova malattia (antraconosi) del Mandorlo (Riv. Pat. veg. IV, pgg. 293-303, in-8, 1 tav.) Firenze 1896.
- Intorno alle cause della malsania del Nocciolo nell'Avellinese e nella Terra di Lavoro (Boll. Not. Agr. XIX, pgg. 313-317, in-8) Roma 1897.
- Il *vaiuolo* dell'Olio e modo di combatterlo (Staz. Sper. Agr. it. XXXII; 72 pgg., in-8, 2 tav.) Modena 1899.
- Sulla malattia degli Olivi denominata *brusca* (Boll. Min. Agr. Ind. Comm. 1903, 40 pgg., in-8, 4 tav.) Roma 1903.

- Brizi U. et Cuboni G. — Cfr. *Cuboni*.
 Brondeau L. (de) — Cfr. *De Erondeau*.
 Brongniart Ch. et Cornu M. — Epidémie causée sur des Diptères du genre *Syrphus* par un Champignon *Entomophthora* (Ass. franç. Avanc. d. Sc., 1878, 4 pgg. in-8) Paris 1878.
- Brunaud P. — Contributions à la flore mycologique de l'Ouest. Sphæricées (Ann. Sc. Nat.; 219 pgg. in-8) La Rochelle 1884.
- Hymenomycètes à ajouter à la flore mycologique des environs de Saintes (Bull. Soc. Bot. Fr. XXXIII, pgg. 507-512, in-8) Paris 1886.
- Liste des Hyphomycètes récoltés aux environs de Saintes (Act. Soc. Linn. Bordeaux, XL: 27 pgg., in-8) Bordeaux 1887.
- Champignons à ajouter à la flore mycologique des environs de Saintes. 2^e ser. (Bull. Soc. Bot. Fr. XXXIV, pgg. 427-431, in-8) Paris 1887.
- Espèces et variétés nouvelles de Sphærosporiidées trouvées aux environs de Saintes (Journ. de Bot. 1887; 3 pgg., in-8) Paris 1887.
- Liste des Pyrénomycètes récoltés jusque à ce jour dans la Charente-inférieure (Bull. Bibl. Scient. de l'Ouest 1888; 40 pgg., in-8) Nantes 1888.
- Sphærosporiidées récoltées jusqu'à ce jour dans la Charente-inférieure (90 pgg. in-8) Saintes 1890.
- Glanules mycologiques I-IV (Ann. Sc. Nat. La Rochelle, 1891-1893; 47 pgg., in-8) La Rochelle 1891-1893.
- Agaricinées récoltées à Fouras (Charente-inférieure). (12 pgg., in-8) s. l. nec a.
- Sphærosporiidées nouvelles ou rares récoltées à Saint Porchaire, à Fouras et à Saintes (Bull. Soc. Bot. Fr. XL, pgg. 221-225, in-8) Paris 1893.
- Champignons récoltés dans la Charente-inférieure en 1892 (Bull. Soc. Sc. Nat. Ouest. de la Fr., IV, pgg. 33-38, in-8) Nantes 1894.
- Brunaud P. — Additions à la flore mycologique de Saintes et de Fouras (*Ibid.*, pgg. 217-220) Nantes 1894?
- Miscellanées mycologiques. III sér. (Act. Soc. Linn. Bordeaux, LII, 19 pgg., in-8) Bordeaux 1898.
- Brunner S. — Einiges über den Steinloecherpilz (*Polyporus Tuberastrer*) und die « Pietra fungia » der Italiener (20 pgg., in-8, 2 tab.) Neuchâtel 1842.
- Brunthaler J. — Ueber eine monströse Wuchsform von *Polyporus squamosus* (Verh. zool.-bot. Gesellsch. 1896, 3 pgg. in-8) Wien 1896.
- Jahres-Katalog pro 1897 der Wiener Kryptogamen-Tauschanstalt (20 pgg., in-4) Wien 1897.
- Brzezinski J. — Le Chancre des arbres, ses causes et ses symptômes (Bull. Ac. Sc. Cracovie 1903, pgg. 95-143, in-8, 3 pl.) Cracovie 1903.
- Bubák Fr. — Ein Beitrag zur Pilzflora der Umgegend von Hohenstadt in Mähren (Oesterr. Bot. Zeitschr. 1897, 5 pgg. in-8) Wien 1897.
- *Puccinia Galanthi* Ung. in Mähren (Oesterr. Bot. Zeitschr. 1897, 3 pgg., in-8, 1 Taf.) Wien 1897.
- Zweiter Beitrag zur Pilzflora von Böhmen und Nordmähren (Verh. zool.-bot. Gesell. 1898, 20 pgg., in-8) Wien 1898.
- *Puccinia Scirpi* DC. (Oesterr. Bot. Zeitschr. 1898, 4 pgg. in-8, 1 Taf.) Wien 1898.
- Zweiter Beitrag zur Pilzflora von Tirol (*Ibid.*, 1903, 3 pgg., in-8) Wien 1900.
- Ueber die Puccinien von Typus der *P. Anemones - virginianæ* (Sitzungsb. böhm. Gesell. d. Wissensch. 1901, 11 pgg., in-8, 1 Taf.) Prag 1901.

- Bubák Fr.** — Einige neue oder kritische *Uromyces*-Arten (*Ibid.*, 1902, 23 pgg., in-8, figg.) Prag 1902.
- Ueber einige Compositen bewohnende Puccinien (*Österr. Bot. Zeitschr.* 1902, 11 pgg. in-8) Wien 1902.
 - Infektionsversuche mit einigen Uredineen (*Centralbl. Bakt. etc.*, IX, pgg. 913-928, figg.) Jena 1902.
 - *Uredo Symphyti* und die zugehörige Telentosporen- und Aecidien-Form (*Ber. deutsch. Bot. Gesell.* XXI, 1 pag., in-8) Berlin 1903.
 - Zwei neue Uredineen von *Mercurialis annua* aus Montenegro (*Ibid.*, pgg. 270-275, in-8) Berlin 1903.
 - Ein neuer Fall von Generationswechsel zwischen zwei, Dikotyledonen Pflanzen bewohnende, Uredineen (*Centralbl. Bakt. etc.*, X, pg. 574, in-8) Jena 1903.
 - Bemerkungen über einige Puccinien (*Hedwigia* XLII, pgg. 28-32, in-8, figg.) Dresden 1903.
 - Beitrag zur Kenntnis einiger Phycomyceten (*Ibid.*, pgg. 100-104, in-8) Dresden 1903.
 - Zwei neue, Monokotylen bewohnende Pilze (*Ann. mycol.* I, pgg. 255-256, in-8) Berlin-Potsdam 1903.
 - Zwei neue Pilze aus Ohio (*Journ. of Mycol.* IX, 3 pgg., in-8) London 1903.
 - Ein Beitrag zur Pilzflora von Montenegro (*Sitzungsb. böhm. Gesell. Wissensch.* 1903, 22 pgg., in-8) Prag 1903.
 - Bericht über die Tätigkeit der Station für Pflanzenkrankheiten und Pflanzenschutz zu Tabor im Jahre 1903 (*Zeitschr. f. d. landwirtsch. Versuchswesen in Österr.* 1904 (3 pgg., in-8) Wien 1904.
 - Eine neue Agaricaceen-Gattung aus Böhmen (*Hedw.* XLIII, pgg. 195-196, in-8) Dresden 1904.
 - Die Fruchtbecher von *Sclerotinia* *Alni* Maul. (*Ann. Myc.* II, 2 pgg., in-8) Berlin 1904.
- Bubák Fr.** — Mykologische Beiträge II (*Hedw.*, XLIII, pgg. 416-421, in-8, Dresden 1904.
- In Böhmen im Jahre 1902 aufgetretene Pflanzenkrankheiten (*Zeitschr. f. d. landw. Versuchswesen in Österr.*, 1904; 11 pgg., in-8) Wien 1904.
 - Infektionsversuche mit einigen Uredineen. II Bericht (1903) (*Centralbl. f. Bakt. etc.*, II Abt., Bd. XII, pgg. 411-426, in-8) Jena 1904.
 - Vorläufige Mitteilung über Infektionsversuche mit Uredineen im Jahre 1904 (*Annal. Mycol.* II, 1 pag., in-8) Berlin 1904.
 - Neue oder kritische Pilze (*Ibid.*, pgg. 395-401, in-8, fig.) Berlin 1904.
- Bubák Fr. et Kabát J. E.** — Mykologische Beiträge I (*Sitzungsb. böhm. Gesell. Wissensch.* 1903, 7 pgg., in-8) Prag 1903.
- Einige neue Imperfecten aus Böhmen und Tirol (*Öst. Bot. Zeitschr.* 1904, 11 pgg., in-8) Wien 1904.
 - Dritter Beitrag zur Pilzflora von Tirol (*Ibid.*, 10 pgg., in-8) Wien 1904.
- Bucholtz F.** — Verzeichniss in Sommer 1896 gefundenen Pilze (27 pgg., in-8) Moskau 1897.
- Bemerkung zur systematischen Stellung der Gattung *Meliola* (*Bull. Herb. Boissier*, V, pgg. 627-630, 1 Taf.) Genève 1897.
 - Uebersicht aller bis jetzt angetroffenen und beschriebenen Pilzarten des Moskauer Gouvernements (58 pgg., in-8) Moskau 1897.
 - Zur Entwicklungsgeschichte der Tuberaceen (*Ber. deut. Bot. Gesell.* XV, pgg. 211-226, in-8, 1 Taf.) Berlin 1897.
 - *Pseudogenea Vallisumbrosæ* n. g. et

- sp. (Hedw. XL, pgg. 129-181, in-8, figg.) Dresden 1901.
- Bucholtz F.** — Verzeichnis der bis jetzt im Baltikum Russlands gefundenen Hypogæen (Korr.-Bl. nat. Ver. zu Riga, XLIV, 9 pgg. in-8) Riga 1901.
- Hypogæen aus Russland (Hedw. XL, pgg. 304-322, in-8) Dresden 1901.
- Beiträge zur Morphologie und Systematik der Hypogæen (Tuberaeen und Gastromyceten pr. p.), nebst Beschreibung aller bis jetzt in Russland angetroffenen Arten (196 pgg., in-8, 6 Taf.) Riga 1902.
- Burnap Ch. E.** — Notes on the genus *Calostoma* (Bot. Gaz. XXIII, pgg. 180-192, in-8, 1 pl.) Chicago 1897.
- Burt E. A.** — A north-american *Anthrurus*. Its structure and development (Mem. Boston Soc. Nat. Hist., III, pgg. 487-505, in-4, 2 pl.) Boston 1894.
- Structure and nature of *Tremella mycetophila* Peck (Bull. Torr. Bot. Club. XXVIII, pgg. 285-287, in-8, 1 pl.) New York 1901.
- Buscalioni L.** — Il *Saccharomyces guttulatus* (Rob.) (Malp. X, pgg. 281-327, in-8, 1 tav.) Genova 1896.
- Buscalioni L. et Casagrandi O.** — Sul *Saccharomyces guttulatus* (Rob.) *Ibid.*, XI, pgg. 59-75, in-8, 1 tav.) Genova 1898.
- Caldesi L.** — Descrizione della *Sphaeria Petrucciana* (Comm. Soc. Critt. it. I, pgg. 40-41, in-8, figg.) Genova 1861.
- Appunti crittogamologici (*Ibid.*, pgg. 889-891, in-8, figg.) Genova 1864.
- *Lenzites faventina* (N. Giorn. Bot. it. I, pag. 133) Firenze 1869.
- Calkins W.** — Notes on Florida fungi (Journ. of Mycol. III, pgg. 33-34, in-8) Manhattan 1887.
- Calvin S.** — Bulletin from the Laboratories of Natural History of the State University of Iowa (in-8) Iowa 1888.
- Canestrini G.** — Sopra un nuovo bacillo che vive negli alveari (Atti Soc. Ven.-Trent. Sc. Nat., XII, pgg. 134-137, in-8, 1 tav.) Padova 1890.
- Canestrini R. et Massalongo C.** — Cfr. *Massalongo C.*
- Carleton M. A.** — Cereal rusts of the United States (Un. St. Dep. of Agr. — Div. Veg. Phys. and Path. Bull. n. 16, 73 pgg., in-8, 4 pl.) Washington 1899.
- Carleton M. A. et Hitchcock A. S.** — Cfr. *Hitchcock.*
- Caruel T. et Mori A.** — Sulla vaiolatura delle arancie (N. Giorn. Bot. it. XI, pgg. 214-215, in-8) Pisa 1879.
- Casagrandi O.** — Sulla morfologia dei Blastomiceti (Naturalista Sicil. II, 24 pgg., in-8) Palermo 1897.
- Casagrandi O. et Buscalioni L.** — Cfr. *Buscalioni.*
- Casali C.** — Diagnosi di nuovi micomiceti (Malp. XI, pgg. 85-89, in-8) Genova 1897.
- Contribuzioni alla conoscenza della flora micologica avellinese I-III (Bull. Soc. Bot. ital. 1900-1901, in-8) Firenze 1900-1901.
- Rassegna dei principali casi fitopatologici studiati nel triennio 1888-1900 nel laboratorio di Patologia vegetale della R. Scuola di Viticoltura ed Enologia di Avellino (Boll. Not. Agr. XXIII, pgg. 73-99, in-8) Roma 1901.
- Rassegna etc. nel primo semestre 1901 (9 pgg., in-8) Avellino 1901.
- Casali C. et Ferraris T.** — Osservazioni sulla malattia della California in provincia di Avellino (Boll. Not. Agr. 1900, n. 28, 7 pgg., in-8) Roma 1900.
- et — Il « mal della California » in provincia di Avellino. Nota prelimi-

- nare (Giorn. Vit. ed Enol. VIII, 12 pgg., in-8, 2 tav.) Avellino 1900.
- Cash W. et Hick Th. — On fossil fungi from the lower coal measures of Halifax (Yorkshire Geol. and Polytechn. Soc. 1879; Leeds 1880
- Notes on *Traquairia* (*Ibid.*) Leeds 1880.
- Castagne L. — Observations sur quelques plantes acotyledonées recueillies dans le département des Bouches-du-Rhône (35 pgg., in-8, 3 pl.) Aix 1843.
- Cattaneo A. — Studi sul parassita delle Ulive (Aren. Lab. Bot. Critt. Pavia, I, pgg. 116-118, in-8, figg.) Milano 1874.
- Sull' *Acremonium Vitis*, nuovo fungo parassita dei vitigni (*Ibid.*, II-III, pgg. 57-61, in-8) Milano 1879.
- La nebbia dei fagioli (*Ibid.*, IV, pgg. 99-103, in-8) Milano 1882.
- Sul male del Caffè (*Ibid.*, V, pgg. 1-15, in-8, 1 tav.) Milano 1888.
- Cattaneo A. et Garovaglio S. — Sulle principali malattie degli Agrumi (*Ibid.*, II-III, pgg. 3-13, in-8, 1 tav.) Milano 1879.
- et — Cfr. *Garovaglio*.
- Cattaneo A. et Oliva L. — Dei miceti trovati sul corpo umano (Arch. Lab. Bot. Critt. V, pgg. 47-142, in-8, 5 tav.) Milano 1885.
- Catterina G. — La malattia delle rane (Boll. Soc. Ven.-Trent. Sc. Nat., V, pgg. 190-194, in-8) Padova 1894.
- Relazione sull'analisi batteriologica delle acque del Tof, Castel di Donna, Castavoli e del Toer nel comune di Farra di Soligo (Treviso) (23 pgg., in-8) Padova 1895.
- Una enzoozia di Carbonchio antrace (Atti Soc. Ven.-Trent. Sc. Nat., ser. II, vol. II, pgg. 439-441, in-8) Padova 1895.
- Sopra uno Streptococco della bronco-
- pneumonite (*Ibid.*, III, pgg. 438-443, in-8) Padova 1898.
- Catterina G. — Sull'esaltata virulenza dello Stafilococco piogene aureo (*Ibid.*, IV, pgg. 153-162, in-8) Padova 1900.
- Cavara F. — Note sur le parasitisme de quelques champignons (Rev. mycol. XIII, pgg., 177-180, in-8) Toulouse 1891.
- Una nuova nebbia del Frumento: la *Gibellina cerealis* Pass. (L'Ital. Agric. XXVIII, pgg. 399-402, in-8, 1 tav.) Piacenza 1891.
- Ueber einige parasitische Pilze auf dem Getreide (Zeitschr. Pflanzenkr. III, pgg. 16-26, in-8, 1 Taf.) Stuttgart 1892.
- Una malattia dei Limoni: *Trichoseptoria Alpei* n. sp. (At. Ist. Bot. Pavia III, pgg. 37-44, in-8, 1 tav.) Milano 1892.
- Intorno alla morfologia e biologia di una nuova specie di *Hymenogaster* (*Ibid.*, pgg. 211-239, in-8, 1 tav.) Milano 1893.
- Sopra un microrganismo zimogeno della Durra (L'Agricoltura ital. XIX, 7 pgg., in-8, fig.) Firenze 1893.
- Ulteriore contribuzione alla micologia lombarda (At. Ist. Bot. Pavia, III, pgg. 313-350, in-8, 1 tav.) Milano 1894.
- Contribuzioni allo studio del marciume delle radici e del deperimento delle piante legnose in genere. I parte (Staz. Sper. Agr. it., XXIX, 27 pgg., in-8, 2 tav.) Modena 1896.
- Ipertrofie ed anomalie nucleari in seguito a parassitismo vegetale (8 pgg., in-8, 1 tav.) Pavia 1896.
- Contributo alla conoscenza delle *Podaxineae* (*Elasmomyces Mattirolianus*, n. g. et sp.) (Malp. XI, pgg. 414-423, in-8, 1 tav.) Genova 1897.

- Cavara F.** — Funghi mangerecci e funghi velenosi (vol. di pgg. I-XIV e 1-190, in-8, 48 tav. e figg.) Milano 1897.
- Intorno alla eziologia di alcune malattie di piante coltivate (Staz. Sper. Agr. it. XXX, pgg. 482-509, in-8) Modena 1897.
 - Ueber eine neue Pilzkrankheit der Weisstanne: *Cucurbitaria pithyophila* (Kunze) De Not. (Zeitschr. Pflanzenkr. VII, pgg. 321-325, in-8, 1 tav.) Stuttgart 1897.
 - Di due microrganismi utili per l'agricoltura (Bull. Soc. Bot. it. 1898, pgg. 241-243, in-8) Firenze 1898.
 - Tumori di natura microbica nel *Juniperus phoenicea* (*Ibid.*, pgg. 241-250, in-8) Firenze 1898.
 - Di una nuova Laboulbeniaceae: *Rickia Wasmanii* n. g. et sp. (Malp. XIII, pgg. 173-188, in-8, 1 tav.) Genova 1899.
 - I nuclei delle *Entomophthorae* in ordine alla filogenesi di queste piante (Bull. Soc. Bot. it. 1899, pgg. 55-60, in-8) Firenze 1899.
 - Le recenti investigazioni di Harold Wager sul nucleo dei Saccaromiceti (Bull. Soc. Bot. it. 1899, pgg. 8-15, in-8) Firenze 1899.
 - Micoceoidi florali del *Rhododendron ferrugineum* (Malp. XIII, pgg. 125-136, in-8, 1 tav.) Genova 1899.
 - Osservazioni citologiche sulle *Entomophthorae* (N. Giorn. Bot. it., n. ser., VI, pgg. 411-466, in-8, 2 tav.) Firenze 1899.
 - *Arcangeliiella Borziana* n. g. et sp. (N. G. Bot. it., n. ser., VII, pgg. 117-128, in-8, 1 tav.) Firenze 1900.
 - Di alcuni miceti nuovi o rari della Sicilia orientale (Bull. Soc. Bot. it. 1902; 5 pgg., in-8) Firenze 1902.
 - *Riccoa aetnensis* Cav., nouveau genre de champignons du M. Etna (Ann. Myc. I, pgg. 41-44, in-8, fig.) Berlin-Potsdam 1908.
- Cavara F. et Bresadola G.** — Cfr. *Bresadola*.
- Cavara F. et Saccardo P. A.** — Cfr. *Saccardo P. A.*
- Cazzani A. E.** — Sulla comparsa della *Peronospora cubensis* in Italia (Atti Ist. Bot. Pavia, X; 2 pgg., in-8) Milano 1904.
- Celakovsky L.** — Die Myxomyceten Böhmens (Arch. Naturw. Landesdurchforsch. v. Böhmen, VII; 80 pgg., in-4, 5 Taf.) Prag 1898.
- Cesati V.** — Ad *Sphaerium Berberidis* et *Lisea* (Hedw. I, pg. 84) Dresden 1853.
- Ad *Diplodium arachnoideum* (*Ibid.*, pag. 41, fig.) Dresden 1854.
 - *Cenangium pruinosum* Ces. (*Ibid.*, pag. 43, fig.) Dresden 1854.
 - Ueber *Sphaeria Leveillei* et *Hypoxyton coccineum* (*Ibid.*, pgg. 70-71) Dresden 1855.
 - Zu *Sphaeria insitiva* (*Ibid.*, pgg. 71-72) Dresden 1855.
 - Zu *Peziza Cesatii* (*Ibid.*, pag. 72) Dresden 1855.
 - Zu *Cryptodiscus Cesatii* und *Phacidium arundinaceum* (*Ibid.* pag. 102, fig.) Dresden 1856.
 - Zu *Peronospora Umbelliferarum* var. *Berkeleyi* (*Ibid.*, pag. 120) Dresden 1857.
- Chatin A.** — La Truffe. Paris 1892.
- Truffles du Maroc et de Sardaigne (Cpt. r. 'Ac. Sc. 1895; 5 pgg., in-4) Paris 1895.
 - Truffe (*Terfezia Hanotauxii*) de Téhéran (*Ibid.* 4 pgg., in-4) Paris 1895.
 - Truffles de Grèce: *Terfezia Gennadii* (Bull. Soc. Bot. Fr., XLIII, pgg. 611-617, in-8) Paris 1896.
- Chelchowski S.** — Fungi fimicoli polonici (Parmietnika Fizyogr., t. XII; 9 pgg., in-8, 1 tab.) Warszawa 1892.

- Chelchowski S.** — Basidiomycetes polonici. I Autobasidiomycetes (285 pgg., in-8) Warszawa 1899.
- Chiamenti A.** — Intorno al parassitismo dell' *Oidium lactis* (Lo Sperimentatore, 1879, n. 9; 8 pgg., in-8) Firenze 1879.
- Chizzolini G.** — Un fungo enorme (Ital. Agric. XVI, pg. 447) Milano 1884.
- Chodat R.** — Recherches sur les ferments (Arch. Sc. phys. et nat., 4^e periode, IX; 26 pgg., in-8) Genève 1900.
- Ciurlo L. R.** — Sull'agaricina (At. Soc. ligust. Sc. Nat. VI; 4 pgg., in-8) Genova 1895.
- Clements F. E.** — Additions to the reported Flora of Nebraska made during 1893 (Un. of Nebr. — Bot. Surv., III Rep. for 1893, pgg. 5-20, in-8) Lincoln 1894.
- New species of Fungi (Un. of Nebr. — Rep. on recent collect., pgg. 5-27, in-8) Lincoln 1901.
- Nova Ascomycetum genera speciosae (Bull. Torr. Bot. Club, XXX, pgg. 83-94, in-8) New York 1903.
- Clements F. E. et Pound R.** — Report on collections made in 1891-95 (Un. of Nebr. — Bot. Surv., 48 pgg., in-8) Lincoln 1896.
- et — A re-arrangement of the north-american Hyphomycetes (Minnesota Bot. Studies — Bull. n. 9, pgg. 644-673, in-8) Minneapolis 1896.
- Clements F. E. et Woods** — Cfr. *Woods*.
- Clinton G. P.** — Orange rust in raspberries and blackberries (Illinois Agr. Exp. Stat., bull. n. 29, pgg. 273-300, in-8, 4 pl.) Champaign, Ill. 1893.
- Broom-corn smut (*ibid.*, bull. n. 47, pgg. 373-431, in-8, 5 pl.) Urbana 1897.
- The smuts of Illinois' agricultural plants (*ibid.*, bull. n. 57, pgg. 289-360, in-8, 10 pl.) Urbana 1900.
- Clinton G. P.** — Apple scab (*ibid.*, bull. n. 67, pgg. 109-156, in-8, 18 pl.) Urbana 1901.
- Apple rots in Illinois (*ibid.*, bull. n. 69, pgg. 189-224, in-8, 10 pl.) Urbana 1902.
- North American Ustilagineae (Journ. of Myc., VII, pgg. 123-156, in-8) Columbus 1902.
- Two new Smuts on *Eriocaulon septangulare* (Rhodora, III, pgg. 79-82, in-8) Boston Mass. 1901.
- North American Ustilagineae (Proc. Boston Soc. Nat. Hist., XXXI, pgg. 329-529, in-8) Boston 1904.
- Report of the Station Botanist (Rep. Connecticut Agric. Exp. Stat. for year 1903, part. IV, pgg. 279-370, in-8, 21 pl.) New Haven 1901.
- Clusius C.** — Icones fungorum (editio nova) Budapest 1900.
- Cobb N. A.** — Plant diseases, and how to prevent them (Agric. Gaz. New South Wales, III (1891), pgg. 991-1006, in-8, figg.) Sydney 1892.
- Notes on diseases of plants (*ibid.*, V (1891) pgg. 379-389, figg.) Sydney 1894.
- A new australian fungus (*Ibid.*, pag. 390) Sydney 1894.
- Cobb N. A. et Mac Alpine** — Cfr. *Mac Alpine*.
- Cocconi G.** — Contribuzione alla biologia dell' *Ustilago Ornithogali* (Mem. Acc. Sc. Ist. Bologna, ser. IV, vol. X, pgg. 103-112, in-4, 1 tav.) Bologna 1889.
- Sullo sviluppo della *Thecaphora aterritima* e dell' *Urocystis primicola* (*Ibid.*, pgg. 317-323, in-4, 2 tav.) Bologna 1890.
- Un pizzico di funghi nuovi (*Ibid.*, ser. V, vol. VI; 12 pgg., in-4, 1 tav.) Bologna 1896.
- Cohn F. et Schröter J.** — Cfr. *Schröter*.

Colenso W. — Diagnoses fungorum Australiensium (Trans. N. Zel. Inst., 1883).

Comes O. — Observations on some species of neapolitan Fungi (Grevillea, 1879, pgg. 109-114, in-8) London 1879.

— Note sull' *Agaricus partenopsius* n. sp. (At. Soc. Critt. it., III, pgg. 38-41, in-8, 1 tav.) Milano 1881.

— L' « Aubernage » dans l'Yonne et le « Mal nero » en Italie (Rev. Myc. 1882, pgg. 107-117, in-8) Toulouse 1882.

— Primi risultati degli sperimenti fatti per la cura della gommosi o mal nero della Vite (L' Agric. merid., an. V, 3 pgg., in-4) Napoli 1882.

— Sulla *Rhizomorpha necatrix* n. sp. (*Ibid.*, VI; 11 pgg., in-4) Napoli 1883.

— Malattia dei Fichi nel Cilento (Boll. Not. Agr., VI, pgg. 674-684, in-8) Roma 1884.

— Sul marciume delle radici e sulla gommosi della Vite nella provincia di Napoli (L' Agric. merid. VII; 3 pgg. in-4) Napoli 1884.

— La cancrena umida del Cavolfiore (At. Ist. Incor. Napoli, III) Napoli 1885.

— Il mal nero e la gommosi nella Vite ed in qualsiasi altra pianta legnosa e gli eccessivi sbalzi di temperatura (*Ibid.*, VI; 18 pgg. in-4) Napoli 1887.

— Crittogamia agraria (600 pgg., in-8, 17 tav.) Napoli 1891.

— Sui recenti studi compiuti anche in Francia sul « mal nero » o « gommosi » della Vite (At. Ist. Incor. Napoli, ser. IV, vol. VII; 14 pgg., in-4) Napoli 1894.

— Sul malanno degli Olivi denominato « brusca » nel Leccese (Boll. Not. Agr., ann. XXIII (1901); 4 pgg., in-8) Roma 1901.

Constantineanu J. C. — Contributions à la flore mycologique de la Roumanie (Rev. gén. Bot., XIII; 21 pgg., in-8, figg.) Paris 1901.

Cooke M. C. — Microscopic fungi (238 pgg., in-8, 16. tav.) London 1865.

— On polymorphic fungi (Popular Science Rev., X, pgg. 25-36, in-8, 1 pl.) London 1871.

— On *Corticium amorphum* Fr. (Grev. III, pgg. 136-137, in-8) London 1875.

— On *Corticium Oakesii* B. et C. (*Ibid.*, pag. 172) London 1875.

— The tendencies of systematic Botany (Pop. Sc. Rev. 1875; 12 pgg., in-8) London 1875.

— The Hyphomycetes fungi of the United States (Bull. Buf. Soc. Nat. Sc., 1877; pgg. 189-202, in-8) London 1877.

— Synopsis Pyrenomycetum (Grevillea 1883-1885) London 1883-1885.

— The genus *Anthostoma* (Grev. 1883, pgg. 49-53, in-8) London 1883.

— *Nummularia* and its allies (*Ibid.*, 8 pgg., in-8) London 1883.

— *Sphaeriaceae imperfecte cognitae* (*Ibid.* pgg. 37-40, in-8) London 1883.

— *Cryptosphaeria millepunctata* (Grev. XI, pgg. 76-78, in-8) London 1883.

— Handbook of british Fungi. Hymenomycetes. 2 edit. London 1883.

— On *Xylaria* and its allies (Grev. 1883, pgg. 81-94, in-8) London 1883.

— *Hypoxylon* and its allies (*Ibid.*, pgg. 121-140) London 1883.

— Notes on Hypocreaceae (*Ibid.*, pgg. 77-83, in-8) London 1884.

— British Sphaeropsidæ (Grev. 1886) London 1886.

— Two remarkable Fungi (sine data).

— Notes on Hymenomycetes (Grev. 1888, pgg. 82-86, in-8) London 1888.

— British edible Fungi. London 1891.

- Cooke M. C.** — Plant diseases and fungi (The Essex Naturalist, VI, pgg. 17-31, in-8) London 1892.
- Handbook of australian fungi. London 1892.
- Vegetable wasps and plant worms. London 1892.
- *Cercospora Melonis* Cooke (Gard. Chron., ser. III, XX, pgg. 271-272, in-8) London 1896.
- A plain and easy account of british Fungi. 6 edit. (166 pgg., in-8, 20 tav.) London 1898.
- Copeland E. B.** — New and interesting Californian fungi (Ann. Myc. II; 8 pgg., in-8, 2 pl.) Berlin — Potsdam 1904.
- Cornu M.** — Reproduction des Ascomycetes — Stylospores et spermatis (Ann. Sc. Nat. — Bot., VI sér., t. III, 60 pgg. in-8, 3 pl.) Paris 1876.
- Note sur le *Phycogaster albus* Cda. (Bull. Soc. Bot. Fr., XXIII, pgg. 359-363, in-8) Paris 1876.
- Note sur l'anthraxose et le *Cladosporium viticolum* (*Ibid.*, XXIV, pgg. 353-355, in-8) Paris 1877.
- Note sur la recolte de quelques champignons hypogés (*Ibid.*, pgg. 13-15) Paris 1877.
- Note sur quelques champignons printaniers (*Ibid.*, XXV, pgg. 129-131, in-8) Paris 1878.
- Anatomie des lesions determinées sur la Vigne par l'anthraxose (*Ibid.*, pgg. 227-230, in-8) Paris 1878.
- Etudes sur les Péronosporées (Compt. rend. Ac. Sc., 1881, pgg. 101-140, in-4, 1 pl.) Paris 1881.
- Etudes sur les Péronosporées II (*Ibid.*, 1882, 91 pgg., in-4, 5 pl.) Paris 1882.
- Cornu M. et Brongniart Ch.** — Cfr. *Brongniart*.
- Costantin J.** — La goutte, maladie du Champignon de couche (Compt. rend. Soc. de Biol. 1892; 4 pgg., in-8) Paris 1892.
- Costantin J.** — Sur quelques maladies du blanc de Champignon (Cpt. rend. Ac. d. Sc., 1892; 3 pgg., in-4) Paris 1892.
- Costantin J. et Dufour L.** — La molle, maladie des Champignons de couche (*Ibid.*, 1892; 3 pgg., in-4) Paris 1892.
- Costantin J. et Lucet** — Cfr. *Lucet*.
- Costantin J. et Matruchot L.** — Sur un nouveau procédé de culture du champignon de couche (Cpt. rend. Ac. Sc. 1893; 3 pgg., in-4) Paris 1893.
- Couderc G.** — Sur les périthèces de l'*Uncinula spiralis* en France et l'identification de l'*Oidium* américain et de l'*Oidium* européen (*Ibid.*, 1893; 3 p., in-4) Paris 1893.
- Crespi M.** — Trattato dei Crittogami e dei Micozoi che infestano gli animali ed i vegetali (160 pgg., in-16) Milano 1883.
- Crossland Ch.** — *Mollisia cinerea* and its varieties (Trans. British Myc. Soc., 1898-99; pgg. 106-109, in-8) Worcester 1899.
- New and critical british Fungi found in West Yorkshire (The Naturalist, 1900, pgg. 5-10, in-8, figg.) Leeds 1900.
- Fungus foray at Cadeby, Melton, Sprotborough and Warmsworth 21 to 26 September 1901 (*Ibid.*, 1901, pgg. 337-350, in-8) Leeds 1901.
- Fungi of Masham and Swinton (*Ibid.*, 1902, pgg. 21-31, in-8) Leeds 1902.
- Fungus foray at Egton Bridge and Arncliffe Woods, near Whitby (*Ibid.*, 1902, pgg. 355-365, in-8) Leeds 1902.
- Crossland Ch. et Massee G.** — New fungi. Contributed by the mycolo-

- gical members of the Union (*Ibid.* 1904; 8 pgg., in-8, 1 pl.) Leeds 1904.
- Crossland Ch. et Massee G. — Cfr. *Massee*.
- Crossland Ch. et Soppitt H. T. — Cfr. *Soppitt*.
- Cuboni G. — Malattie delle Viti nella provincia di Roma (Boll. Not. Agr. VIII, pgg. 1691-1692, in-8) Roma 1886.
- Sulle cause del disseccamento dei grappoli (*Ibid.*, pgg. 1693-1691, in-8) Roma 1886.
- La peronospora della Rosa (Staz. Sper. Agr. it., XIV, pgg. 295-308, in-8, 1 tav.) Modena 1884.
- Nuovi parassiti della Vite in Italia (Boll. Not. Agr., X, pgg. 2332-2338, in-8) Roma 1888.
- Nota dei casi di malattie dei vegetali presentati alla Stazione di Patologia vegetale di Roma (Boll. Not. Agr. 1888-1900) Roma 1888-1900.
- Diagnosi di una nuova specie di fungo Excipulaceo (Bull. Soc. Bot. it. 1891, pg. 577, in-8) Firenze 1891.
- Sulla presenza di batterii negli acervuli della *Puccinia Hieracii* (Bull. Soc. Bot. it. 1891, pag. 296, in-8) Firenze 1891.
- Comparsa di una nuova malattia crittogamica della Vite in Italia (Boll. Not. Agr., XVI, II, pgg. 378 e 522, in-8) Roma 1894
- Malattie crittogamiche del Gelso (*Ibid.*, XVI, I, pgg. 235-298, in-8) Roma 1894.
- La malattia del Castagno in Italia nell'anno 1896 (*Ibid.*, XIX, pg. 196) Roma 1897.
- Studi ed esperienze eseguite presso la Stazione di Patologia vegetale di Roma: Studi sulle Nocciolate ammannate (*Ibid.*, XIX, pgg. 488-490, in-8) Roma 1897.
- Cuboni G. — Attività della R. Stazione di Patologia vegetale di Roma durante gli anni 1899 e 1900 (*Ibid.*, XXIII, pgg. 398-412, in-8) Roma 1901.
- Cuboni G. et Brizi U. — *Septoglaum Mori* (Lév.) Br. et Cav. (Bull. Soc. Bot. it. 1894, pag. 216, in-8) Firenze 1894.
- et — La fersa del Gelso (Boll. Not. Agr., XVIII, pgg. 321-328, in-8, 1 tav.) Roma 1896.
- Cuboni G. et Megliola G. — Sopra una malattia infesta alle colture dei funghi mangerecci (Rend. Acc. Linc., Cl. Sc., ser. V, vol. XII, pgg. 440-448, in-4) Roma 1903.
- Cuboni G. et Pizzigoni A. — Contribuzione allo studio dei fermenti del vino (Staz. Sper. Agr. it., XXV, pgg. 7-19, in-8, 2 tav.) Modena 1898.
- Cufino L. — Un piccolo contributo alla flora micologica della provincia di Napoli (4 pgg., in-8, Napoli 1904.
- Un secondo contributo alla flora micologica della provincia di Napoli (Malp. XVIII; 7 pgg. in-8) Genova 1904.
- Fungi Magnagutiani (*ibid.*, XVIII, 6 pgg. in-8) Genova 1904.
- Cugini G. — Il « mal nero » della Vite (L'agricolt. ital., VIII, 50 pgg., in-8) Firenze 1883.
- Cugini G. et Traverso G. B. — La *Sclerospora macrospora* Sacc. parassita della *Zea Mays*. Nota preliminare (Staz. Sper. Agr. it., XXXV, pgg. 46-49, in-8) Modena 1902.
- Cunningham Cl. A. — A Bacterial disease of the Sugar Beet (Bot. Gaz., XXVIII, pgg. 177-192, in-8, 5 pl.) Chicago 1899.
- Cunningham D. D. et Prain D. — A note on indian wheat-rust (Rec. Bot. Survey of India, I (1896), pgg. 99-124, in-8) Calcutta 1896.

- Currey F.** — On two new fungi (Microsc. Journ. II, pgg. 240-242, in-8, 1 pl.) London 1854.
- Currey F. et Hambury D.** — Remarks on *Sclerotium stipitatum* B. et C., *Pachyma Cocos* Fr., and some similar productions (Trans. Linn. Soc., XXIII, pgg. 93-97, in-4, 2 pl.) London 1860.
- Cutter E.** — Food versus Bacilli in consumption (Virginia Medic. Monthly, 1888, 22 pgg., in-8) New-York 1888.
- Da Camara Pestana J.** — Contribucao para o estudo da flora mycologica da Matta da Machada (Rev. Agron., I, pgg. 117-118, in-8) Lisboa 1903.
- Destruição da *Altica ampelophaga* por meio do *Sporotrichum globuliferum* (Ibid., pgg. 173-174, 1 pl.) Lisboa 1903.
- Da Camara de Souza M. et D'Almeida V.** — Cfr. *D'Almeida*.
- D'Almeida Verissimo J.** — La Gaffa des Olives en Portugal (Bull. Soc. Myc. Fr., XV; 7 pgg., in-8, figg.) Lons-le-Saunier 1899.
- Contribution à la mycoflore du Portugal (51 pgg., in-8) Lisboa 1903.
- D'Almeida Verissimo J. et Da Camara de Souza M.** — Contribucao para a mycoflore de Portugal (Rev. Agron., I, pgg. 89, 138, 175, in-8, figg.) Lisboa 1903.
- et — Estudos mycologicos (Ibid., I, pgg. 20-26, in-8, figg.) Lisboa 1903.
- et — Trabalhos do Laboratorio de Nosologia vegetal etc. (Ibid., pgg. 55-59, in-8, figg.) Lisboa 1903.
- Del Piaz G.** — Sulla natura delle eredute Equisetacee del gneiss di Rezzano e dei micascisti del Trentino (Bull. Soc. Geol. ital., XXII, 3 pgg., in-8) Roma 1903.
- Dangeard P. A.** — *Le Botanist.* Caen-Paris 1889-1904.
- La reproduction sexuelle des Champignons (Le Botaniste, 7 sér., pgg. 89-130, in-8) Paris 1900.
- Sur le nouveau genre *Protoascus* (Compt. rend. Ac. Sc., 1903, I, pgg. 627-628, in-4) Paris 1903.
- Darbishire O. (von)** — Kritische Bemerkungen über das *Microgonidium* (Hedw. XXXIV, pgg. 181-190, in-8) Dresden 1895.
- Dardana J. A.** — In Agaricum campestre veneno in patria infiammum Acta (32 pgg. in-8) Angustæ Taurinorum 1788.
- Dassonville Ch. et Matruchot L.** — Cfr. *Matruchot*.
- Davis B. M.** — The fertilisation of *Albugo candida* (Bot. Gaz. XXIX, pgg. 297-311, in-8, 1 pl.) Chicago 1900.
- Third supplementary list of parasitic fungi of Wisconsin (Trans. Wisc. Ac. of Sc., XIV, pgg. 83-106, in-8) Madison 1903.
- Dawson M.** — On the biology of *Poronota punctata* L. (Ann. of Bot. XIV, pgg. 245-262, in-8, 2 pl.) London 1900.
- Dearness J. et Ellis J. B.** — Cfr. *Ellis*.
- De Bary A.** — Untersuchungen über die Brandpilze — Berlin 1853.
- De Bary A. et Woronin W.** — Cfr. *Woronin*.
- De Borch M.** — Lettres sur les Truffes du Piémont (in-8, pgg. I-VII et 1-52, 3 tab.) Milan 1780.
- De Brondeau L.** — Sur une variété remarquable du *Merulius tremellosus* (Mem. Soc. Linn., 1825, pgg. 276-279, in-8) Paris 1825.
- Deckenbach C.** — Note sur une nouvelle espèce de Mucoorintes: *Abidia Tieghemi* (Scripta Botan., t. V, pgg. 245-256, in-8, 1 pl.) S. Pétersbourg 1897.

De Franciscis F. — Sulla presenza dell' *Ustilago violacea* Pers. nei fiori di *Melandrium pratense* (Bull. Soc. Bot. it. 1901, pgg. 261-266, in-8) Firenze 1901.

De Glaxa V. et Gosio B. — Cfr. *Gosio*.

Delacroix G. — Maladies qui attaquent le Champignon de couche dans les environs de Paris (Journ. de l'Agric. 1900; 14 pgg. in-8) Paris 1900.

— Sur la maladie des Oeillets produite par le *Fusarium Dianthi* (Cpt. rend. Ac. Sc. 1900; 3 pgg. in-4) Paris 1900.

— La maladie des Oeillets d'Antibes (Ann. Inst. Agron. XVI; 48 pgg., in-8, figg.) Nancy 1901.

— Contribution à l'étude d'une maladie nouvelle de la Pomme de terre produite par le *Bacillus solanicola* n. sp. (Cpt. rend. Ac. Sc. 1901; 8 pgg. in-4) Paris 1901.

— Sur une nouvelle maladie de la Pomme de terre en France (Journ. de l'Agric. 1901; 7 pgg. in-8) Paris 1901.

— Sur une maladie bactérienne de la Pomme de terre (Cpt. rend. Ac. Sc. 1901; 3 pgg. in-4) Paris 1901.

— Rapport sur une maladie bactérienne nouvelle de la Pomme de terre (Bull. Min. Agr. 1901; 21 pgg., in-8) Paris 1902.

— Les ennemis et les maladies du Théier (Journ. Agric. tropic. 1902, n. 9; 6 pgg., in-8) Paris 1902.

— Sur une forme conidienne du champignon du Black Rot (Cpt. rend. Ac. Sc. 1902, II; 2 pgg., in-4) Paris 1902.

— Sur deux maladies du Vanillier et sur le mode de développement du champignon du « noir des Bananes » (Bull. Soc. Myc. Fr. XVIII; 14 pgg., in-8, figg.) Paris 1902.

— Maladies des plantes cultivées — Paris 1902.

Delacroix G. — Sur la maladie du Cotonnier en Egypte (L' Agr. prat. des Pays Chauds 1903; 11 pgg., in-8) Paris 1903.

— Sur la pourriture des Pommes de terre (Bull. Soc. Myc. Fr. XIX; 21 pgg., in-8) Paris 1903.

— Travaux de la Station de Pathologie végétale (*Ibid.*, 32 pgg., in-8, figg.) Paris 1903.

— De la filiosité des Pommes de terre (Cpt. rend. Ac. Sc. 1903; 2 pgg., in-4) Paris 1903.

— Sur la jaunisse de la Batterarve (*Ibid.*, 3 pgg., in-4) Paris 1903.

Delacroix G. et Prillieux — Cfr. *Prillieux*.

De Lamarlière L. (Génau) — Sur trois espèces nouvelles de *Spheriaceae* (Rev. Gén. Bot. VI, 3 pgg., in-8, figg.) Paris 1894.

De Laplanche M. C. — Cfr. *Laplanche*.

Delden A. (van) et Beijerinck M. W. — Cfr. *Beijerinck*.

Del Guercio G. — Di una infezione crittogamica manifestatasi nel *Caloptenus italicus* (Bull. Soc. Bot. it. 1894, pgg. 89-91, in-8) Firenze 1894.

Del Guercio G. et Baroni E. — Cfr. *Baroni*.

Del Torre F. — Note sui funghi del distretto di Cividale (Riv. It. Sc. Nat. XI, 4 pgg., in-4) Siena 1891.

— Ulteriori notizie sulle crittogame del Cividalese (*Ibid.*, XII, 8 pgg., in-4) Siena 1892.

De Maisonneuve Durieu Ch. — Cfr. *Durieu*.

De Notaris G. — Monografia delle Escipule della flora italiana (Mem. Acc. Sc. Torino, ser. II, t. X, 9 pgg., in-4) Torino 1849.

De Notaris G. et Balsamo G. — Cfr. *Balsamo*.

De Oliveira Duarte — Cfr. *Duarte*.

De Seynes J. — Des rapports des My-

- codermes avec les levures (Bull. Soc. Bot. Fr. XV, pgg. 180-181, in-8) Paris 1868.
- De Seynes J.** — Un *Ptychogaster* du Congo (Bull. Soc. Bot. Fr., XL, pgg. LXXXIV-LXXXVI, in-8) Paris 1898.
- Structure de l'hymenium chez un *Marasmius* (Cpt. rend. Ac. Sc. 1895, 3 pgg., in-4) Paris 1895.
- Recherches pour servir à l'histoire naturelle et à la flore des champignons du Congo français. I. (in-4; pgg. I-VII et 1-29, figg. et 3 pl.) Paris 1897.
- De Souza da Camara** — Cfr. *Da Camara*.
- Destrée C.** — Catalogue des Champignons des environs de la Haye. I-VI (Overdr. Ned. Kruidk. Arch.) Nijmegen 1892-1895.
- Révision des *Geaster* observés dans les Pays-Bas (*Ibid.*, sér. 2^e, VI; 15 pgg., in-8, 5 pl.) Nijmegen 1894.
- Supplément au catalogue des Champignons des environs de la Haye (*Ibid.*, 3^e sér. I; 8 pgg., in-8) Nijmegen 1896.
- De Toni E.** — Note sulla flora friulana. Serie terza (Malp. III, pgg. 396-403 et 508-512, in-8) Genova 1889.
- De Toni G. B. et Saccardo F.** — Revisione di alcuni generi di Cloroficee epifite (Nuova Notarisia 1890, 21 pgg., in-8, 3 tav.) Padova 1890.
- De Wildeman E.** — Notes mycologiques I-X sér. (Ann. Soc. Belge Microsc. XVII-XXII, in-8, avec pl.) Bruxelles 1898-1899.
- Census Chytridinearum (63 pgg., in-8) Gand 1896?
- Dierckx F.** — Essai de revision du genre *Penicillium* (Ann. Soc. Sci. Bruxelles, XXV, 8 pgg., in-8) Bruxelles 1901.
- Dietel P.** — Kurze Notizen über einige Rostpilze (Hedw. 1889, pgg. 177-187, in-8) Dresden 1889.
- Dietel P.** — Bemerkungen über einige in - und ausländische Rostpilze (*Ibid.*, pgg. 19-23) Dresden 1889.
- Ueber das Vorkommen von zweierlei Teleutosporen bei der Gattung *Gymnosporangium* (*Ibid.*, pgg. 99-103, in-8) Dresden 1889.
- Die Gattung *Ravenelia* (*Ibid.*, 1894, pgg. 22-69, in-8, 5 Taf.) Dresden 1894.
- Ueber den Generationswechsel von *Melampsora Feliocopiae* und *M. vernalis* (Forstlich-naturwiss. Zeitschr. 1895; 2 pgg., in-8) 1895.
- Ueber die Unterscheidung von *Gymnosporangium juniperinum* und *G. tremelloides* (*Ibid.*, 4 pgg., in-8, figg.) 1895.
- Ueber Rostpilze mit wiederholter Äcidienbildung (Flora LXXXI, pgg. 394-404, in-8) Marburg 1895.
- Zur Kenntniss der Gattung *Uredinopsis* (Ber. deutsche Bot. Ges. XIII, pgg. 326-335, in-8, 1 Taf.) Berlin 1895.
- *Ochrospora*, eine neue Uredineengattung (*Ibid.*, pgg. 401-402, in-8) Berlin 1895.
- Ueber die biologische Bedeutung der Paraphysen in der Uredolagern von Rostpilzen (Hedw. XLI, pgg. 58-61, in-8, figg.) Dresden 1902.
- Einige Uredineen aus Japan (*Ibid.*, pgg. 177-178, in-8) Dresden 1902.
- Uredineae japonicae III et IV (Engler's Botan. Jahrb. XXXII, pgg. 47-52 et 624-632, in-8) Leipzig 1902-1903.
- Ueber die *Uromyces*-Arten auf Lupinen (Hedw. XLII, pgg. 93-99, in-8) Dresden 1903.
- Bemerkungen über einige nordamerikanische Uredineen (*Ibid.*, pgg. 179-181, in-8, figg.) Dresden 1903.
- Eine neue *Puccinia* auf *Senecio*

- (Ann. Myc. I) Berlin - Potsdam 1903.
- Dietel P.** — Ueber die Teleutosporenform von *Uredo laeviuscula* und über *Melampsora Fagi* (*Ibid.*, pgg. 415-417, in-8) Berlin-Potsdam 1903.
- Bemerkungen über die Uredosporen von *Uromyces brevipes* und *U. punctato-striatus* (Ann. Mycol., II, 4 pgg., in-8) Berlin 1904.
- Ueber die Uredineengattung *Pucciniostele* Transschel et Komarov (*Ibid.*, II, pgg. 20-26, in-8) Berlin 1904.
- Uredineæ japonicæ V. (Engler's Botan. Jahrb., Bd. XXXIV, pgg. 583-592, in-8) Leipzig 1905.
- Dietel P. et Negar F.** — Uredinacæ chilenses I (Engler's Bot. Jahrb. XXII, pgg. 348-358, in-8) Leipzig 1896.
- Cfr. etiam *Schröter*.
- D'Ippolito G. et Traverso G. B.** — La *Sclerospora macrospora* Sacc. parassita delle infiorescenze vire-scenti di *Zea Mays* (Staz. Sper. Agr. it., XXXVI, 23 pgg. in-8, 3 tav.) Modena 1903.
- Dorsett P. H.** — Spot disease of the Violet (*Alternaria Violæ* n. sp.) (Un. St. Dep. of Agr. — Div. of Veg. Phys. a. Path., Bull. n. 23, 16 pgg. in-8, 7 pl.) Washington 1900.
- Duarte de Oliveira** — A nova molesta das oliveiras em Portugal: *Bacillus Oleæ* (Jorn. Hort.-Agr. VIII pgg. 321 et 337 et IX, pag. 1) Porto 1900-1901.
- Duby J. E.** — Botanicon gallicum — Paris 1828-1830.
- Dudley P. H.** — Fungi inducing decay in Timber (Trans. New York Acad. of Sc. 1886, pgg. 110-118, in-8) New York 1886.
- Dufour L.** — Une nouvelle espèce de *Psathyrella* (Rev. gén. Bot. I, pgg. 651-652, in-8) Paris 1889.
- Dufour L. et Costantin J.** — Cfr. *Costantin*.
- Duggar B. M.** — Variability in the spores of *Uredo Polypodii* (Proceed. Am. Ac. of Arts a. Sc. 1894, pgg. 396-400, 1 pl.) Boston 1894.
- On a bacterial disease of the Squashbug (*Anasa tristis*). Bull. Illinois State Labor. of Nat. Hist. IV, pgg. 340-379, in-8, 2 pl.) Springfield 1896.
- Some important Pear diseases (Cornell Univ. Agr. Exp. St. Ithaca 1898, Bull. n. 145, pgg. 597-627, in-8, figg.) Ithaca 1898.
- Three important fungous diseases of the Sugar Beet (*Ibid.*, 1899, Bull. 163, pgg. 339-363, in-8, figg.) Ithaca 1899.
- Peach leaf-curl and Notes on the shot-hole effect of Peaches and Plums (*Ibid.*, 1899, Bull. 164, pgg. 371-388, in-8, figg.) Ithaca 1899.
- Duggar B. M. et Stewart F. C.** — The sterile fungus *Rhizoctonia* as a cause of plant-diseases in America (*Ibid.*, Bull. 186, pgg. 51-76, in-8, figg.) Ithaca 1901.
- Dumée P.** — Note sur l'*Hypomyces lateritius* (Bull. Soc. Myc. Fr. XI, 6 pgg. in-8, 1 pl.) Lons-le-Saunier 1895.
- Nécessité de réviser le genre *Amanita* (*Ibid.* XVIII; 10 pgg. in-8) Paris 1902.
- Dumée P. et Maire R.** — Remarques sur le *Zaghouania hillyreæ* (*Ibid.* XVIII, 9 pgg., in-8) Paris 1902.
- et — Cfr. *Maire*.
- Durand E. J.** — A disease of currant Canes (Cornell. Univ. Agr. Exp. St. Ithaca, Bull. 125, pgg. 23-38, in-8, 1 pl.) Ithaca 1897.
- The classification of the fleshy *Pezizineæ* with reference to the structural characters etc. (Bull. Torr. Bot. Club XXVII, pgg. 463-495, in-8, 6 pl.) New York 1900.

- Durand E. J.** — Studies in North american Discomycetes. I. The Genus *Holwaya* Sacc. (*Ibid.*, XXVIII, pgg. 349-355, in-8, 1 pl.) New York 1901.
- *Dacryop* is *Ellisiana* Massee (*Ibid.*, XXIX, 1 pag., in-8) New York 1902.
- The genus *Angelina* (Journ. of Myc. VIII, pgg. 108-109, in-8) Columbus 1902.
- Studies in North american Discomycetes. II. Some new or noteworthy species from central and western New York (Bull. Torr. Bot. Club XXIX, pgg. 453-465, in-8) New York 1902.
- Durieu Ch. (de Maisonneuve)** — Notice sur les champignons comestibles et les champignons vénéneux (Belgique Hortie. XXIV, pgg. 144-152, in-8) Liège 1874.
- Duss-Patouillard** — Énumération méthodique des Champignons recueilli à la Guadeloupe et à Martinique (94 pgg., in-8) Lons-le-Saunier 1903.
- Dutrochet H. J.** — Observations sur les Champignons (N. Ann. du Mus. de Paris, III, pgg. 59-79, in-4, 1 pl.) Paris 1834.
- Earle F. S.** — Some fungi imperfecti from Alabama (Bull. Torr. Bot. Club. XXIV, pgg. 28-32, in-8) New York 1897.
- Some fungi from South America (*Ibid.*, XXVI, pgg. 632-634, in-8) New York 1899.
- Cotton diseases (Alabama Exp. Stat., Bull. n. 107, pgg. 289-330, in-8) Auburn 1900.
- Some Florida fungi (Bull. Torr. Bot. Club, XXVII, pgg. 120-123, in-8) New York 1900.
- Some fungi from Portorico (*Muhlenbergia* I, pgg. 10-17, in-8) Lancaster Pa. 1901.
- Earle F. S.** — Fungi in « Plantae Barkerianæ » by E. L. Greene and others, vol. II (30 pgg., in-8) Washington 1901.
- Botanical Contributions — Mycological studies I. (New York Bot. Gard. 1902, pgg. 331-350 in-8) New York 1902.
- Earle F. S. et Tracy S. M.** — Cfr. *Tracy*.
- Earle F. S. et Underwood L. M.** — Cfr. *Underwood*.
- Ehrenberg C. G.** — Fungorum nova genera tria (Sprengel's Jahrb. I (1820), pgg. 51-58, in-8, 1 tab.) Berlin 1820.
- Elchebaum F.** — *Sphaeria Sommeri* (Cfr. Botan. Centralbl. XXIX, I, pag. 378) Cassel 1887.
- Eichler J.** — *Picoa Carthusiana* Tul. im Schwarzwald (Jahresb. Ver. f. vaterl. Naturk. Württemberg 1898, pgg. 331-333, in-8) Württemberg 1898.
- Eichler J. et Kirchner O.** — Cfr. *Kirchner*.
- Eliasson A. G.** — *Taphrina acerina* n. sp. (Bih. till Vet. Akad. Handl., Bd. XX; 7 pgg., in-8, 1 Taf.) Stockholm 1895.
- Fungi suecici (Bot. Not. 1895, pgg. 17, 57, 107, in-8) Lund 1895.
- Svampar ur C. J. Johansons herbarium (*Ibid.*, 1896, pgg. 205-214, in-8) Lund 1896.
- Fungi Upsalienses (K. Svenska Vet.-Akad. Handl., Bd. XXII; 20 pgg., in-8, 1 Taf.) Stockholm 1897.
- Ellis J. B.** — *Diatrype disciformis* (The Amer. Naturalist, 1882, pgg. 239-240, in-8) Philadelphia 1882.
- New north-american fungi (Bull. Torr. Bot. Club, IX, pgg. 18, 73, 98, 111, 133, et X, pgg. 52-54, in-8) New York 1892-83.
- New species of north-american fungi (The American Naturalist, 1882,

- pgg. 809 et 1001; et 1833, pgg. 192 et 316, in-8) Philadelphia 1832-83.
- Ellis J. B. — Notes on *Gymnosporangium* and *Ræstelia* (*Ibid.*, dec. 1833) Philadelphia 1833.
- Notes on some specimens of Pyrenomycetes in the Schweinitz Herbarium of the Academy (Proceed. Acad. Nat. Sc. Philadelphia 1895, 12 pgg. in-8) Philadelphia 1895.
- Ellis J. B. et Anderson W. — New species of Montana Fungi. Chicago 1891.
- Ellis J. B. et Bartholomew E. — New species of Kansas fungi, I (*Erythea* 1896, pgg. 79-83) Berkeley Cal. 1896.
- et — New Kansas fungi (*Ibid.*, pgg. 1-4 et 23-29) Berkeley Cal. 1896.
- et — New species of fungi from various localities (Journ. of Mycol. VIII, pgg. 173-178, in-8) Columbus 1902.
- Ellis J. B. et Dearness J. — New species of Canadian fungi (Canadian Rec. of Sc., 1893, pgg. 267-272, in-8) Montreal 1893.
- et — New species of Canadian fungi (Proceed. Canad. Instit., n. ser., I, pgg. 89-93, in-8) Toronto 1897.
- et — New species of Canadian fungi (Trans. Canad. Instit. 1899, 4 pgg., in-8, figg.) Toronto 1899.
- Ellis J. B. et Everhart B. M. — Notes on a species of *Coprinus* from Montana (The Microscope, X, pgg. 129-131, in-8, 1 pl.) Washington 1890.
- et — The north-american Pyrenomycetes — Newfield 1892.
- et — New species of fungi from various localities (Proceed. Acad. Nat. Sc. Philadelphia 1893, pgg. 440-446; 1894 pgg. 322-386; 1895 pgg. 413-441, in-8) Philadelphia 1893-1895.
- et — New species of north-american fungi from various localities (*Ibid.*, 1893, pgg. 128-172, in-8) Philadelphia 1893.
- Ellis J. B. et Everhart B. M. — New west-american fungi (*Erythea* I, pgg. 197-206 et II, pgg. 17-27, in-8) Berkeley Cal. 1893-94.
- et — New Californian fungi (*Ibid.*, I pgg. 145-147, in-8) Berkeley Cal. 1893.
- et — Description of a new fungus (Journ. of Trinidad Field Naturalist's Club. I; 1 pag., in-8) Port of Spain 1894.
- et — New species of Ustilagineæ and Uredineæ (Bull. Torr. Bot. Club, XXII, pgg. 57-61, in-8) New York 1895.
- et — New fungi, mostly Uredineæ and Ustilagineæ from various localities and a new *Fomes* of Alaska (Bull. Torr. Bot. Club, XXII, pgg. 362-364, in-8) New York 1895.
- et — New species of fungi (*Ibid.*, 1895, pgg. 434-440; 1897 pgg. 125-137 et 457-477; 1898 pgg. 501-514; 1900 pgg. 49-64 et 571-578) New York 1895-1900.
- et — *Lasiodiplodia tubericola* n. g. et sp. (Bot. Gaz. 1896) Chicago 1896.
- et — New species of tropical fungi (Bull. Lab. Nat. Hist. St. Univ. Iowa, IV, pgg. 67-72, in-8) Iowa 1896.
- et — New west-american fungi, III (*Erythea* V; pgg. 5-6, in-8) Berkeley Cal. 1897.
- et — New fungi from Yucatan (*Ibid.*, 1 pag., in-8) Berkeley Cal. 1897.
- et — New species of fungi from various localities (Americ. Naturalist 1897, pgg. 339-343 et 426-430, in-8) Philadelphia 1897.
- et — New west-indian fungi (Bull. Torr. Bot. Club, XXIV, pgg. 207-209, in-8) New York 1897.

- Ellis J. B. et Everhart B. M. — New species of north american fungi (*Ibid.*, pgg. 277-292) New York 1897.
- et — The north-american *Phyllostictas* (79 pgg., in-8) Vineland N. J. 1900.
- et — New Alabama fungi (Journ. of Mycol. VIII, pgg. 62-73, in-8) Columbus 1902.
- et — New species of fungi from various localities (*Ibid.*, 1902, pgg. 11-19; 1903 pgg. 164-168 et 222-225; 1904 pgg. 167-170, in-8) Columbus 1902-1904.
- Ellis J. B. et Holway E. W. D. — New Iowa fungi (Bull. Lab. Nat. Hist. Univ. of Iowa III, pgg. 41-43, in-8) Iowa 1895.
- Ellis J. B. et Kellerman W. A. — New species of north-american fungi (Amer. Naturalist, 1883, pgg. 1164-1166, in-8) Philadelphia 1883.
- et — New Kansas fungi (Journ. of Mycol. IV, pgg. 26-27, in-8) Washington 1888.
- et — A new species of *Phyllosticta*: *Ph. Alcides* (Ohio Naturalist, 1902, II, pgg. 223 et 262, in-8) Cincinnati (?) 1902.
- et — Two new species of *Cercospora* (Journ. of Myc., IX, 1 pg., in-8) Columbus 1903.
- Ellis J. B. et Kelsey F. D. — New west-indian fungi (Bull. Torr. Bot. Club 1897, pgg. 207-209, in-8) New York 1897.
- Ellis J. B. et Mac Bride T. H. — Nicaraguan Hymenomycetes (Bull. Lab. Nat. Hist. State Univ. Iowa, III, pgg. 190-194, in-8) Iowa 1896.
- Ellis J. B. et Saccardo P. A. — *Everhartia hymenuloides* (West Chester Daily republican, 27 may 1882) West Chester 1882.
- Engelhardt H. — Ueber *Rosellinia congregata* Beck, eine neue Pilzart aus der Braunkohlenformation Sachsen (Abhandl. d. Isis in Dresden, 1887, pgg. 33-35, in-8, 1 Taf.) Dresden 1887.
- Engelke C. — Beitrag zur hannoverschen Pilzflora (48 u. 49 Jahresh. d. Naturh. Ges. zu Hannover, pgg. 80-126, in-8) Hannover 1900.
- Eriksson J. — Ueber die Specialisierung des Parasitismus bei den Getreiderostpilze (Ber. deutsch. bot. Ges. XII, pgg. 292-331, in-8) Berlin 1894.
- Ein parasitischer Pilz als Index der inneren Natur eines Pflanzenbastards (Bot. Notiser, 1895, pgg. 251-253, in-8) Leeds 1895.
- Ueber die verschiedene Rostempfänglichkeit verschiedener Getreidesorten (Zeitschr. f. Pflanzenkr., V, pgg. 80-85 et 156-158, in-8) Stuttgart 1895.
- Ueber die Förderung der Pilzsporenkeimung durch Kälte (Centralbl. Bakt. etc. 1895, pgg. 557-565, in-8, figg.) Jena 1895.
- Einige Beobachtungen über den stammbewohnenden Kiefernblasenrost, seine Natur und Erscheinungsweise (*Ibid.*, 1896, pgg. 377-394, in-8) Jena 1896.
- Welche Rostarten zerstören die australischen Weizenernten? (Zeits. f. Pflanzenkr. VI, pgg. 141-144, in-8) Stuttgart 1896.
- Zur Charakteristik des Weizenbraunrostes (Centralbl. Bakt. etc. 1897, 7 pgg., in-8) Jena 1897.
- Der heutige Stand der Getreiderostfrage (Ber. deutsch. bot. Ges. XV, pgg. 183-194, in-8) Berlin 1897.
- Weitere Beobachtungen über die Specialisierung des Getreideschwarzrostes (Zeitschr. f. Pflanzenkr. VII, 5 pgg., in-8) Stuttgart 1897.
- Vie latente et plasmétique de certains Uredinées (Cpt. rend. Ac. Sc. 1897, 3 pgg. in-4) Paris 1897.

- Eriksson J. — Neue Beobachtungen über die Natur und das Vorkommen des Kronerostes (Centralbl. f. Bakter. etc. 1897, 18 pgg., in-8) Jena 1897.
- Ueber die Dauer der Keimkraft in den Wintersporen gewisser Rostpilze (*Ibid.*, 1898, pgg. 376 et 427, in-8) Jena 1898.
- Etude sur le *Puccinia Ribis* DC. des Grosseilliers rouges (Rev. gén. Bot. X, 10 pgg., in-8, 1 pl.) Paris 1898.
- Principaux résultats des recherches sur la rouille des céréales exécutées en Suède (*Ibid.*, 16 pgg., in-8) Paris 1898.
- Studien über den Exenbesenrost der Berberitze (*Puccinia Arrhenatheri*) (Beitr. zur Biol. d. Pflanzen VIII, 16 pgg., in-8, 3 Taf.) Breslau 1899.
- Nouvelles études sur la rouille brune des céréales (Ann. Sc. Nat.-Bot., sér. VIII, t. IX, pgg. 241-288, in-8, 3 pl.) Paris 1899.
- Sur l'origine et la propagation de la rouille des céréales par la semence (*Ibid.*, sér. VIII, t. XIV et XV; 284 pgg., in-8, figg., 5 pl.) Paris 1902.
- The researches of Prof. H. Marshall Ward on the brown rust on the Bromes and the mycoplasma hypothesis (Arch. f. Botan. I, pgg. 139-146, in-8) Stockholm 1903.
- Sur l'appareil végétatif de la rouille jaune des céréales (Opt. rend. Ac. Sc., octob. 1903, 3 pgg., in-4) Paris 1903.
- Nouvelles recherches sur l'appareil végétatif de certaines Uredinées (*Ibid.*, 1904, 3 pgg., in-4) Paris 1904.
- Eriksson J. et Henning E. — Die Hauptresultate einer neuen Untersuchung über die Getreideroste (Zeitschr. Pflanzenkr. IV, pgg. 66-76, 140-142, 257-261. in-8) Stuttgart 1894.
- Eriksson J. et Henning E. — Die Getreideroste; ihre Geschichte und Natur. Stockholm 1896.
- Eriksson J. et Tischler G. — Ueber das vegetative Leben der Getreiderostpilze I. (Kun. Svenska Vetensk.-Akad. Handl., Bd. XXXVII n. 6; 19 pgg., in-4, 2 pl.) Stockholm 1904.
- Errera L. Hérité d'un caractère acquis chez un champignon pluricellulaire (Bull. Acad. roy. Belg. 1899, pgg. 81-102, in-8) Bruxelles 1899.
- Everhart B. M. et Ellis J. B. — Cfr. *Ellis J. B.*
- Fairchild D. G. — Bordeaux mixture as a fungicide (N. St. Dep. of Agric. — Div. of Veg. Pathol., Bull. n. 6; 55 pgg., in-8) Washington 1894.
- Fairman Ch. E. — Puff-balls, slime-moulds and cup-fungi of Orleans county, New York (Proceed. Rochester Acad. of Sc., III, pgg. 207-220, in-8) Rochester 1900.
- Farlow W. G. — The black-knot (Bull. Bussey Instit. I, pgg. 440-454; in-8) Cambridge, Boston 1876?
- On the synonymy of some species of Uredineæ (Proceed. Amer. Acad. of Arts and Sc. 1878, pgg. 262-263, in-8) Boston 1878.
- *Æcidium* on *Juniperus virginiana* (Bot. Gaz. XII, pgg. 205-207, in-8) Chicago 1887.
- Notes on fungi, I. (*ibid.*, XIV, pgg. 187-190, in-8) Chicago 1889.
- Diseases of trees likely to follow mechanical injuries (Mass. Hort. Soc. 1891, 15 pg., in-8) Boston 1891.
- Dr. Mayr on the parasitic fungi of north-american forest-trees (Garden and Forest, 1892, 1 pag.) New York 1892.

Farlow W. G. — Notes on collections of Cryptogams from the higher mountains of New England (Proc. Bost. Soc. Nat. Hist. XXV, pgg. 387-391, in-8) Boston 1892.

— Note on *Agaricus amygdalinus* Curtis (*ibid.*, XXVI, pgg. 356-358, in-8) Boston 1894.

— Notes for Mushroom-eater (Garden and Forest 1894, 20 pgg., in-8, figg.) New York 1894.

— A sketch of cryptogamic botany in Harvard University (16 pgg., in-8) Cambridge Mass. 1896.

— The conception of species as affected by recent investigations on fungi (23 pgg., in-8) Boston 1898.

— Some edible and poisonous fungi (Un. St. Dep. of Agr. — Div. of veg. Phys. a. Path., Bull. n. 15, pgg. 453-470, in-8, 10 pl.) Washington 1898.

Farneti R. — Funghi mangerecci e velenosi (315 pgg., in-8, figg., 7 tav.) Milano 1898.

— Intorno ad una nuova malattia delle Albicocche (Atti Ist. Bot. Pavia, VII, 9 pgg., in-8) Milano 1900.

— Intorno al *Boletus Briosianus* n. sp. (*ibid.*, 17 pgg., in-8, 3 tav.) Milano 1900.

— Nuovi materiali per la micologia lombarda. Funghi della provincia di Cremona, I. (*ibid.*, VI, pgg. 95-108, in-8) Milano 1900.

— Intorno allo sviluppo ed al polimorfismo di un nuovo micromicete parassita (*Ibid.*, VII, 42 pgg., in-8, 4 tav.) Milano 1902.

— Le volatiche e l'atrofia dei frutti del Fico (*ibid.*, VIII, 6 pgg., in-8, 1 tav.) Milano 1903.

— Intorno alla malattia del Caffè sviluppatasi nelle piantagioni di Cuicatlan nel Messico (*ibid.*, IX, 2 pgg., in-8) Milano 1904.

— Intorno ad alcune malattie della

Vite non ancora descritte od avvertite in Italia (*ibid.*, X) Milano 1904.

Farneti R. — Il marciume dei bocciuoli e dei fiori delle Rose causato da una forma patogena della *Botrytis vulgaris* (*ibid.*) Milano 1904.

Farneti R. et Briosi G. — Cfr. *Briosi*.

Farneti R. et Montemartini L. — Cfr. *Montemartini*.

Fautrey F. — Espèces nouvelles ou rares de la Côte-d'Or (Rev. Myc. 1894-1897) Toulouse 1891-1897.

Fautrey F. et Lambotte E. — Espèces nouvelles de la Côte-d'Or (Rev. Myc. 1894-1896) Toulouse 1894-96.

Fautrey F. et Rolland — Cfr. *Rolland*.

Fautrey F. et Saccardo P. A. — Cfr. *Saccardo P. A.*

Fayod V. — Agaricineæ africanæ (Abh. Bot. Ver. Prov. Brandenburg XXXI, pgg. 224-229, in-8, 1 Taf.) Berlin 1890.

— Censimento dei funghi osservati nelle valli Valdesi del Piemonte (Annali Acc. Agr. Torino XXXV, pgg. 81-114, in-8) Torino 1898.

Felix J. — Studien über fossile Pilze (Zeitschr. deutsch. geolog. Ges. 1894, pgg. 269-280, in-8, 1 Taf.) Berlin 1894.

Feltgen J. — Vorstudien zur einer Pilzflora des Grossherzogthums Luxemburg, I-III (Rec. Mem. et Travaux Soc. bot. Luxemburg 1898-1903, in-8) Luxemburg 1899-1903.

Ferguson M. C. — A preliminary study of the germination of the spores of *Agaricus campestris* and other Basidiomycetous fungi (Un. St. Dep. of Agr.-Bur. of Pl. ind., Bull. n. 16; 43 pgg., in-8, 3 pl.) Washington 1902.

Ferraris T. — Di un nuovo Ifomicete parassita nei frutti di Arancio (Malp. XIII, pgg. 368-381, in-8, 1 tav.) Genova 1900.

- Ferraris T.** — Materiali per una flora micologica del Piemonte. Miceti raccolti nei dintorni di Crescentino. I. (*ibid.*, XIV, pgg. 193-228, in-8) Genova 1900.
- Reliquie Cesatiane. II. Primo elenco di funghi del Piemonte (Ann. Ist. Bot. Roma, IX, 38 pgg., in-4) Roma 1902.
- Materiali per una flora micologica del Piemonte. II. (Malp. XVI, 46 pagg., in-8, 2 tav.) Genova 1902.
- Miceti della Valle d' Aosta. I. (Malp. XVI, 41 pgg., in-8, 2 tav.) Genova 1902.
- Il brusone del Riso e la *Piricularia Oryzae*. Nota prel. (*ibid.* XVII, 34 pgg. in-8, 2 tav.) Genova 1903.
- Enumerazione dei funghi della Valsesia raccolti dal cav. Ab. Antonio Carestia: serie III (Malp. XVIII, 22 pgg., in-8, 1 tav.) Genova 1904.
- Ferraris T. et Casali C.** — Cfr. *Casali*.
- Ferrati E. et Gosio B.** — Cfr. *Gosio*.
- Ferry R.** — Recherches sur les matières sucrées contenues dans les champignons (Rev. Myc. 1890, 4 pgg., in-8, 1 pl.) Toulouse 1890.
- Feuilleaubeis P. V. A.** — Liste raisonnée de quelques Fonginées récoltées aux environs de Paris (Rev. de Bot. II et III) Paris 1883-1884.
- Field M. et Bolley H. L.** — Cfr. *Bolley*.
- Fiori A.** — Sulla presenza del *Cyathus Lesueurii* in Italia (Boll. Soc. Ven. Trent. Sc. Nat. V, pgg. 198-204, in-8, figg.) Padova 1894.
- Fischer A.** — Cfr. *Schröter*.
- Fischer A. (von Waldheim)** — Zur Kenntnis der *Entyloma*-Arten (6 pgg., in-8) Moskau 1877.
- Die Bakterienkrankheiten der Pflanzen (Centralbl. f. Bakt. etc. V, pgg. 279-287, in-8) Jena 1899.
- Fischer Ed.** — Nachtrag zur Abhandlung über *Pachyma Cocos* (Hedw. 1891, 2 pgg., in-8) Dresden 1891.
- Fischer Ed.** — Ueber die sog. Sclerotien-Krankheiten der Heidelbeere, Preisselbeere und der Alpenrose (Mitth. Naturf. Gesell. 1891, 2 pgg., in-8) Bern 1891.
- Die Sclerotienkrankheit der Alpenrosen: *Sclerotium Rhododendri* (Ber. Schweiz. Bot. Gesell. 1893, 18 pgg., in-8, figg.) Bern 1893.
- Beiträge zur Kenntnis exotischer Pilze. III: *Geaster stipitatus* Solms (Hedw. 1893, pgg. 50-56, in-8, 1 Taf.) Dresden 1893.
- Contributions à l'étude du genre *Coleosporium* (Bull. Soc. Bot. Fr. XLI, pgg. CLXVIII-CLXXIII, in-8) Paris 1894.
- Die Entwicklung der Fruchtkörper von *Mutinus caninus* Huds. (Ber. deutsch. bot. Gesell. XIII, pgg. 128-137, 1 Taf.) Berlin 1895.
- Weitere Infektionsversuche mit Rostpilzen (Mitth. Naturf. Gesell. 1895, 2 pgg., in-8) Bern. 1895.
- Die Zugehörigkeit von *Aecidium penicillatum* (Hedw. XXXIV, 6 pgg., in-8, figg.) Dresden 1895.
- Ueber den Parallelismus der Tubraceen und Gasteromyceten (Ber. deutsch. bot. Ges. XIV, pgg. 301-311, in-8) Berlin 1896.
- Beiträge zur Kenntnis der schweizerischen Rostpilze (Bull. Herb. Boissier V, pgg. 393-397; VI, pgg. 11-17; VII, pgg. 419-422, in-8) Genève 1897-99.
- Bemerkungen über *Geopora* und verwandte Hypogäen (Hedwigia XXXVII, pgg. 56-60, in-8, figg.) Dresden 1893.
- Entwicklungsgeschichtliche Untersuchungen über Rostpilze (Beitr. Kryptogamenfl. der Schweiz I; 121 pgg., in-8, 2 Taf.) Bern. 1893.
- Untersuchungen zur vergleichenden Entwicklungsgeschichte und Systematik der Phalloideen (Denkschr.

- Schw. Naturf. Gesell. XXXVI, 84 pgg. in-8, 6 Taf.) Bern. 1900.
- Fischer Ed.** — Fortsetzung der entwicklungsgeschichtlichen Untersuchungen über Rostpilze. (Ber. Schweiz. Bot. Gesell. 1900-1904) Bern. 1900-1904.
- Bemerkungen über die Tuberaceengattungen *Gyrocatera* und *Eydnotrya* (Hedw. XXXIX, pgg. 48-51; in-8, figg.) Dresden 1900.
 - Die Uredo- und Teleutosporengeneration von *Aecidium elatinum* (Ber. Deutsch. Bot. Gesell. XIX, pgg. 397-398, in-8) Berlin 1901.
 - Einige Bemerkungen über die von Herrn Prof. C. Schroeter aus Java mitgebrachten Phalloideen (Jahr. (IV) des Naturf. Gesell. Zürich, XLVI, pgg. 122-127, in-8 figg.) Zürich 1901.
 - Fungi (in *Schinz* Beiträge zur Kenntnis der afrikanischen Flora) (Bull. Herb. Boiss., II sér., t. I, pgg. 758-762, in-8) Genève 1901.
 - *Aecidium elatinum* der Urheber des Weissstannen-Hexenbesen und seine Uredo- und Teleutosporenform (Zeitschr. f. Pflanzenkr., XI et XII, 33 pgg., in-8, figg., 2 Taf.) Stuttgart 1901.
 - Beiträge zur Kenntniss der schweizerischen Rostpilze (Bull. Herb. Boiss., sér. II, t. II, pgg. 950-959, in-8) Genève 1902 (Vide retro).
 - Fortsetzung der entwicklungsgeschichtlichen Untersuchungen über Rostpilze (14-17) (Ber. Schweiz. bot. Gesell., Hft. XV, 13 pgg. in-8) Bern 1905.
- Fischer Ed. et Boudier E.** — Cfr. *Boudier*.
- Flores V.** — Sulla malattia degli agrumeti di Milis in Sardegna (L' Ital. Agric. XXXIII, pgg. 13-17, in-8) Piacenza 1896.
- Fontana F.** — Osservazioni sopra la ruggine del Grano (114 pgg., in-8, 1 tav.) Lucca 1767.
- Forster E. J.** — Agaricus of the United States. Genus *Panus* (Journ. of Mycol. IV, pgg. 21-26, in-8) Washington 1883.
- Franciscis F. (de)** — Cfr. *De Franciscis*.
- Forquignon L. et Mougeot A.** — Champignons observés aux environs de La Bolle, près Saint-Dié. (Rev. Mycol. 1885, pgg. 5-8, in-8) Toulouse 1885.
- Freeman E. M.** — A preliminary list of Minnesota Erysiphæe (Minn. Bot. Stud. II, p. IV, pgg. 423-430, in-8) Minneapolis 1900.
- Fries E.** — Systema orbis vegetabilis. Lundæ 1825.
- Fries E.** — Note sur la distribution géographique des Champignons (trad. franç. par *W. Nylander*) (Ann. Sc. Nat.-Bot. XV, pgg. 10-35, in-8) Paris 1861.
- Fries R. E.** — Sveriges Myxomyceter (K. Vetensk.-Akad. Förhandl. 1899, pgg. 215-246, in-8) Stockholm 1899.
- *Basidiobolus myxophilus*, en ny Phycomycet (*ibid.*, 16 pgg., in-8, 2 Taf.) Stockholm 1899.
 - In Synopsin Hymenomycetum regionis Gothoburgensis additamentum (Acta Reg. Soc. Scient. Gothob., t. III, sér. IV, 33 pgg., in-8) Gothoburgi 1900.
 - Myxomyceter von Argentinien und Bolivia (Ark. f. Bot. 1903, pgg. 57-70, in-8) Stockholm 1903.
- Fulton T. W.** — The dispersion of the spores of fungi by the agency of insects, with special reference to the Phalloidei (Ann. of Bot. III, pgg. 207-238, in-8, 1 pl.) London 1889.
- Gabotto L.** — Contribuzione alla flora micologica pedemontana (Nuov.

- (Giorn. bot. ital., n. s., vol. XII, pgg. 53-77, in-8) Firenze 1905.
- Gadeau H. (de Kerville) — Curieux aspect du mycelium d'un champignon Hyménomycète (Le Naturaliste 1894, pgg. 194-196, in-8) Paris 1894.
- Galeno A. — Del *Bacillus Anthracis* nella provincia di Padova (Boll. Soc. Ven.-Trent. Sc. Nat., III, pgg. 44-56, in-8) Padova 1883.
- Galloway B. T. — *Uncinula polychæta* B. et C. (Bot. Gaz., XIII, pgg. 29-32, in-8, figg.) Chicago 1888.
- Notes on western Erysipheæ and Peronosporæ (Journ. of Mycol. IV, pgg. 33-36, in-8) Washington 1888.
- Experiments in the treatment of Pear-leaf-blight and the Apple powdery mildew (Un. St. Dep. of Agric. — Sect. veg. Path.; 11 pgg., in-8, figg.) Washington 1889.
- Report of the Chief of the division of vegetable Pathologie for 1891 (Un. St. Dep. of Agr. — Sect. veg. Path., 1892, pgg. 359-378, in-8, 3 pl.) Washington 1892.
- Some destructive Potato-diseases (U. St. Dep. of Agr. — Farmer's Bull. n. 15, 8 pgg., in-8, figg.) Washington 1894.
- Observations on the development of *Uncinula spiralis* (Bot. Gaz. XX, pgg. 486-491, in-8, 2 pl.) Chicago 1895.
- A rust and leaf casting of Pine leaves (*ibid.*, XXII, pgg. 433-453, in-8, 2 pl.) Chicago 1896.
- Potato diseases and their treatment (Un. St. Dep. of Agr. — Farmer's Bull. n. 91, 11 pgg., in-8, figg.) Washington 1896.
- Garbiglietti A. — Catalogo delle principali specie di funghi crescenti nei contorni di Torino etc. (At. Accad. Medic. Torino, V, 65 pgg. in-4) Torino 1867.
- Garovaglio S. — Del carolo o brusone del Riso (Arch. Lab. Bot. Critt. Pav. I, pgg. 173-202, in-8; 2 tav.) Milano 1874.
- Prospetti dei lavori eseguiti nel Laboratorio crittogamico nel 1871-73 (*ibid.* I, pgg. LIII-LXVIII, in-8) Milano 1874.
- Relazione al signor conte Bettoni di Brescia sui parassiti ond'erano affette le foglie ed i rami di Gelso etc. (*ibid.* I, pgg. 126-131, in-8, fig.) Milano 1874.
- Relazione al signor Tonini di Verona sulla malattia dei Capperi (*ibid.* I, pgg. 134-141, in-8, figg.) Milano 1874.
- Sulla scoperta di un Discomicete trovato nel cerume dell'orecchio umano (*ibid.* I, pgg. 113-114, in-8) Milano 1874.
- Sullo *Sporotrichum Maydis* etc. (*ibid.* pgg. 31-40, in-8, figg.) Milano 1874.
- Nuove ricerche sul vajuolo della Vite (*ibid.* II-III, pgg. 347-355, in-8) Milano 1879.
- La Peronospora viticola ed il Laboratorio crittogamico (*ibid.* IV, pgg. 23-53, in-8) Milano 1882.
- La Vite ed i suoi nemici nel 1881 (*ibid.* IV, pgg. 183-204, in-8, 2 tav.) Milano 1882.
- Garovaglio S. et Cattaneo A. — Relazione al signor marchese Fr. Carega di Murice sulla causa dell'«allettamento» di alcuni saggi di Frumento etc. (*ibid.* I, pgg. 119-125, in-8, 1 tav.) Milano 1874.
- et — Nuove ricerche sulla malattia del Brusone del Riso (*ibid.* II-III, pgg. 15-20, in-8) Milano 1879.
- et — Sulla *Erysiphe graminis* e sulla *Septoria Tritici* (*ibid.* II-III, pgg. 21-33, in-8, 1 tav.) Milano 1879.
- et — Studi sulle dominanti malattie dei vitigni (*ibid.* II-III, pgg. 245-288, in-8, 2 tav.) Milano 1879.

- Garovaglio S. et Cattaneo A. — Sulla ruggine dell' Abete rosso: *Peridermium abietinum* (*ibid.* II-III, pgg. 47-55, in-8, 1 tav.) Milano 1879.
- et — Cfr. Cattaneo A.
- Gasparrini G. — Ricerche sulla natura della « pietra fungaia » e sul fungo che vi soprannasce (At. Acc. Pont., ser. II, vol. II, pgg. 197-254, in-4, 5 tav.) Napoli 1841.
- Osservazioni sulla generazione delle spore nel *Podisoma fuscum* (Rend. Acc. Sc. Napoli, 1848, 13 pgg. in-4, 1 tav.) Napoli 1848.
- Osservazioni sul cammino di un micelio fungoso nel fusto vivente dell' *Acacia dealbata* (Atti Acc. Sc. fis. e mat. Napoli, II, pgg. 304-315, in-4, 1 tav.) Napoli 1865.
- Gasparini G. — Ulteriori ricerche sul genere *Streptotrix* (Riv. gen. ital. di Clinica medica, IV, 11 pgg. in-8) Firenze 1892.
- Ulteriori ricerche sul genere *Actinomyces* (Proc. verb. Soc. tosc. Sc. Nat. 1894, 27 pgg. in-8) Pisa 1894.
- Sulla cosiddetta *Crenothrix Kühniana* o *polyspora* etc. (Atti Soc. Sc. Nat. Pisa 1898, 4 pgg., in-8) Pisa 1898.
- I microbi patogeni e la loro classificazione naturale (Giorn. d' Ippologia 1902, n. 5; 3 pgg., in-8) Pisa (?) 1902.
- (Gavotti G.). — Trattato dei funghi [Anonymus] (pgg. I-XII et 1-271) Roma 1792.
- Geerligs et Went. — Cfr. Went.
- Géneau L. (De Lamarlière). — Cfr. De Lamarlière.
- Gerard W. R. — New fungi (n. 6). (Bull. Torr. Bot. Club. VI, pgg. 77-78, in-8) New York 1876.
- Giard A. — *L' Isaria densa*, champignon parasite du Hanneton commun (Bull. Sc. de la Fr. et de la Belg. XXVI, 112 pgg., in-8, 4 pl.) Paris 1898.
- Giard A. et Billet A. — Observation sur la maladie phosphorescente des Talitres et autres Crustacés (Cpt. rend. Soc. de Biolog., 1889, 4 pgg., in-8) Paris 1889.
- Giaxa V. (de) — Cfr. De Giaxa.
- Gibelli G. — Studi sulla moltiplicazione artificiale delle crittogame parassite dei cereali (Att. Acc. Modena, XVII, 9 pgg., in-4) Modena 1877.
- Giesenhagen K. — Ueber Hexenbesen an tropischen Farnen (Flora 1892, pgg. 180-156, in-8, 2 Taf.) Marburg 1892.
- *Taphrina*, *Exoascus* und *Magnusiella* (Bot. Zeit. 1901, pgg. 115-142, in-8, 1 Taf.) Leipzig 1901.
- Gillot X. — Liste des Cryptogames récoltées en Corse pendant la session extraordinaire de 1877 (Bull. Soc. Bot. Fr., XXV, pgg. 131-138, in-8) Paris 1878.
- Glück H. — Der Moschuspilz: *Nectria moschata* (Engler's Bot. Jahrb. XXXI, pgg. 495-515, in-8, 2 Taf.) Leipzig 1902.
- Gobi Ch. — Entwicklungsgeschichte des *Pythium tenue* n. sp. (Ser. bot. Horti Univ. Petropol., fasc. XV, pgg. 211-226, in-8) St. Pétersbourg 1899.
- Ueber einen neuen parasitischen Pilz, *Rhizidiomyces Ichneumon* n. sp. etc. (*ibid.* pgg. 251-292, in-8, 2 Taf.) St. Pétersbourg 1899.
- Godfrin J. — Espèces critiques d'Agaricinées: *Lepiota cepanostipes* et *L. lutea* (Bull. Soc. Myc. Fr. XIII, 7 pgg. in-8) Lons-le-Saunier 1897.
- Caractères anatomiques des Agaricinées (26 pgg., in-8, figg.) Nancy 1901.
- Golden K. E. et Arthur J. C. — Cfr. Arthur.
- Gosio B. — Sul riconoscimento dell' arsenico per mezzo di alcune muf-

- fe (Lab. Scientif. Direz. Sanità, Roma; 15 pgg., in-8, 1 tav.) Roma 1892.
- Gosio B.** — Azione di alcune muffe sui composti fissi dell'arsenico (*ibid.*, 32 pgg., in-8, 1 tav.) Roma 1892.
- Sulla sterilizzazione di miscele liquide incompatibili ad elevata temperatura (*ibid.*, 7 pgg., in-8, fig.) Roma 1895.
- Zersetzungen zuckerhaltigen Nährmaterialen durch den *Vibrio cholerae-asiaticae* (Archiv. f. Hygiene XXII, 27 pgg., in-8, fig.) München 1895.
- Ricerche batteriologiche e chimiche sulle alterazioni del Mais. II (Riv. Igiene e San. pubbl., VII, 46 pgg., in-8) Roma 1896.
- Ulteriori ricerche sulla biologia e sul chimismo delle arseniomuffe (L'Orsi, 1900, n. 11, 19 pgg., in-8) Firenze 1900.
- Gosio B. et De Giacca V.** — Ricerche sul bacillo della peste bubbonica in rapporto alla profilassi (Annali d'Igiene, VII, 12 pgg., in-8) Roma 1897.
- Gosio B. et Ferrati E.** — Sull'azione fisiologica dei veleni del Mais invaso da alcuni Ifomiceti (Riv. Igiene e San. pubbl., VII, 24 pgg. in-8) Roma 1896.
- Gray S. F.** — A natural arrangement of british plants (2 voll., in-8) London 1821.
- Grazzi-Soncini G.** — Influenza dei fermenti sul profumo del vino (24 pgg., in-8), Conegliano 1891.
- Griffini L.** — Ricerche micologiche sul sangue carbonchioso dei bovini (Arch. Lab. Bot. Critt. Pavia, I, pgg. 203-208, in-8) Milano 1874.
- Relazione intorno alle esperienze ed osservazioni sulla rugiada dei luoghi miasmatici (*ibid.* pgg. 148-158, in-8) Milano 1874.
- Griffiths A. B.** — On a fungoid disease in the roots of *Cucumis sativa* (Proc. Roy. Soc. Edinburgh, XV, pgg. 403-410, in-8, 1 pl.) Edinburgh 1888.
- Griffiths D.** — Contributions to a better knowledge of the Pyrenomyces. I: A study of miscellaneous species (Bull. Torr. Bot. Club. XXVI, pgg. 432-444, in-8, 2 pl.) New York 1899.
- Contributions to a better knowledge of the Pyrenomyces II: A new species of Ergot (*ibid.* XXVIII, pgg. 236-241, in-8, figg.) New York 1901.
- Concerning some west-american fungi (*ibid.* XXIX, pgg. 290-301, in-8, figg.) New York 1902.
- The north-american *Sordariaceae* (Mem. Torr. Bot. Club., XI, 134 pgg., in-8, 19 pl.) New York 1901.
- Concerning some west-american Smuts (Bull. Torr. Bot. Club. XXXI, pgg. 83-88, in-8, figg.) New York 1904.
- Grove W. B.** — Nomad fungi: the reclassification of the Uredineae (Birmingham Nat. Hist. Soc. Rep. and Trans. 1882, pgg. 109-122, in-8, 1 pl.) Birmingham 1882.
- A fungous disease of *Eucharis* (The Gard. Chron., 1886, pgg. 396-397, in-8, fig.) London 1886.
- Halsted B. D.** — Report of the Botanical Department of the New Jersey Agric. College Exp. Station. 1895, 1896, 1899. — Trenton N. J. 1896, 1897; Camden N. J. 1900.
- Hambury D. et Currey F.** — Cfr. *Currey*.
- Hansen E. C.** — Biologische Untersuchungen über Mist bewohnende Pilze (Bot. Zeit. 1897, pgg. 111-132, in-4, 1 Taf.) Leipzig 1897.
- Hansen E. C.** — Recherches sur la

- physiologie et la morphologie des ferments alcooliques (Rés. cpt. rend. travaux Labor. « Carlsberg », V, pgg. 64-107, in-8, figg.) Kopenhagen 1902.
- Hansen E. C. — Grundlinien zur Systematik der Saccharomyceten (Centralbl. Bakt., II Abth., XII, pgg. 529-538, in-8) Jena 1904.
- Hariot M. P. — Énumération des champignons récoltés en Corse jusqu'à l'année 1901 (Cpt. rend. Assoc. franc. Adv. Sc. — Congrès d'Ajaccio 1901, pgg. 448-457, in-8) Paris 1901.
- Hariot M. P. et Patouillard N. — Cfr. *Patouillard*.
- Harkness H. W. — Californian hypogeous fungi (Proceed. Calif. Acad. Sc., ser. III, v. I, Bot., pgg. 241-292, in-8, 4 pl.) S. Francisco 1899.
- Harper R. A. — Beitrag zur Kenntnis der Kernteilung und Sporenbildung in *Ascus* (Ber. deutsch. bot. Gesell. XIII, pgg. 67-77, in-8, 1 Taf.) Berlin 1895.
- Die Entwicklung des Peritheciiums bei *Sphaerotheca Castagnei* (*ibid.* pgg. 475-481, in-8, 1 Taf.) Berlin 1895.
- Nuclear phenomena in certain stages in the development of the Smuts (Trans. Wisconsin Acad., XII, pgg. 475-498, in-8, 2 pl.) Madison 1899.
- Hartig. R. — Untersuchungen aus dem forstbotanischen Institut zu München - Berlin 1880-1883.
- Niedere Organismen in Raupenblute (Forstlich-naturwiss. Zeitschr. 1892, 2 pgg., in-8, fig.) München 1892.
- *Septogloeum Hartigianum* Sacc., ein neuer Parasit des Feldahornes (*ibid.* 3 pgg., in-8) München 1892.
- *Rhizina undulata* Fr., der wurzelschwamm (*ibid.*, 6 pgg., in-8) München 1892.
- Hartmann M. — Eine rassenspaltige *Torula*-Art, welche nur zeitweise Maltose zu vergären vermag (*Torula colliculosa* n. sp.) (Wochenschr. f. Brauerei 1903, 3 pgg., in-4, figg.) Berlin 1903.
- Harvey F. L. — Contribution to the Myxogaster of Maine (Bull. Torr. Bot. Club, XXIV, pgg. 65-74, in-8) New York 1897.
- Harz C. O. — Beitrag zur Kenntnis des *Polyporus officinalis* (Bull. Soc. Natural. Moscou, XLI, I, pgg. 1-40, in-8, 2 Taf.) Moscou 1868.
- Verzeichnis der Bayerischen Zygo- und Leptomyces (Ber. Bayer. Bot. Gesell. II, pgg. 70-71, in-8) München 1892.
- Ueber einige Schimmelpilze auf Nahrungs- und Genussmitteln (Sitzungsber. Gesell. f. Morph. u. Physiol. 1900, 3 pgg., in-8) München 1900.
- Pomeranzentierarbiges Schweiss (Centralbl. Bakter. etc. XXXV, 2 pgg. in-8) Jena 1903.
- Hazslinszky Fr. — Magyarország s Társszágainak Sphaeriái. Budapest 1892.
- Hedgcock G. G. — New apparatus for phytopathological Work (Journ. of applied Microscopy, etc. Rochester, vol. VI, pgg. 2439-2495, in-8, figg.) Rochester 1904.
- Proof of the identity of *Phoma* and *Phyllosticta* on the sugar Beet (Journ. of Mycol., X, 2 pgg., in-8) Columbus 1904.
- A note on *Rhizoctonia* (Science, n. s., vol. XIX, pag. 268) New York 1904.
- Hedgcock G. G. et Metcalf H. — Eine durch Bakterien verursachte Zuckerrübenkrankheit (Zeitschr. f. Pflanzenkr., Bd. XII, pgg. 321-324, in-8) Stuttgart 1902.
- Heinsen E. — Beobachtungen über den neuen Getreidepilz: *Rhynchosporium graminicola* (Jahrb. Ham-

- burg. Wissensch. Anstalten, XVIII, 13 pgg., in-8, 4 Taf.) Hamburg 1901.
- Henderson G. C. et Morris M. — The cultivation and life-history of the ringworm fungus: *Trichophyton tonsurans* (Journ. R. Microscop. Soc., ser. II, vol. III, pgg. 329-337, in-8, 1 pl.) London 1883.
- Henneberg W. — Die Brennereihefen Rasse II und Rasse XII (Zeitschr. f. Spiritusindustrie, 1903, 3 pgg., fol., 1 Taf.) Berlin 1903.
- Henning E. et Eriksson J. — Cfr. Eriksson.
- Hennings P. — Botanische Mitteilungen (Abhandl. Bot. Ver. Prov. Brandenburg, XXX, pgg. 128-137, in-8) Berlin 1888.
- *Aecidium Schweinfurthii* n. sp. (*ibid.* pgg. 299-300, in-8) Berlin 1883.
- Ueber *Isaria rhodosperma* Bres. n. sp. an Stämmen von *Seafortia elegans* in Berliner Bot. Garten (*ibid.* XXXI, pgg. IX-X, in-8) Berlin 1889.
- Neue Art Hymenomycetum: *Polyporus Buttneri* (*ibid.*, pag. 66, in-8) Berlin 1889.
- Die *Tylostoma* - Arten der Umgebung Berlins (*ibid.* XXXIV, 2 pgg., in-8) Berlin 1892.
- *Geaster marchicus* n. sp. (*ibid.*, 7 pgg., in-8) Berlin 1892.
- Fungi brasilienses II (Engler's Bot. Jahrb. XVII, pgg. 523-526, in-8) Leipzig 1893.
- Fungi africani II (*ibid.* XVII, 42 pgg., in-8, 1 Taf.) Leipzig. 1893.
- Einige neue und interessante Pilze aus dem K. Botan. Museum in Berlin (Hedwigia XXXII, pgg. 61-64, in-8, 1 Taf.) Dresden 1893.
- Fungi Warburgiani (*ibid.* pgg. 216-223, in-8, 1 Taf.) Dresden 1893.
- Fungi aethiopico-arabici. I (Bull. Herb. Boiss. I, pgg. 97-122, in-8, 2 pl.) Genève 1893.
- Hennings P. — Fungi novo-guineenses. II (Engler's Bot. Jahrb. XVIII, pgg. 22-40, in-8) Leipzig 1894.
- Die Helvellaceen der Umgegend Berlins (Abh. Bot. Ver. Prov. Brandenburg XXXVI, pgg. 65-77, in-8) Berlin 1894.
- Neue und interessante Pilze aus dem K. Bot. Museum in Berlin. II (Hedw. XXXIII pgg. 229-233, in-8) Dresden 1894.
- Die Septoriakrankheit neuseeländischer Veronicaarten unserer Gärten (Zeitschr. f. Pflanzenkr. IV, pgg. 203-204, in-8) Stuttgart 1894.
- Ueber das Vorkommen von *Bulgaria polymorpha* an lebenden Eichen (*ibid.* pgg. 266-267, in-8) Stuttgart 1894.
- Die Clavariaceen der Mark Brandenburg (*ibid.* XXXVII, pgg. 15-33, in-8) Berlin 1895.
- Mykologische Notizen (*ibid.*, 14 pgg., in-8) Berlin 1895.
- Fungi austro - africani (Hedw. XXXIV, pgg. 325-327, in-8) Dresden 1895.
- Fungi goyazenses (*ibid.* pgg. 88-116, in-8) Dresden 1895.
- Nachträge zu den Fungi goyazenses (*ibid.* pgg. 319-324, in-8) Dresden 1895.
- Fungi aethiopici a cl. G. Schweinfurth lecti (*ibid.* pgg. 328-334, in-8) Dresden 1895.
- Fungi blumenavienses ab A. Möller lecti (*ibid.* pgg. 335-338, in-8) Dresden 1895.
- *Sterigmatocystis Ficuum*, die Ursache einer schädlichen Krankheit in Feigenfrüchten (Naturw. Wochenschrift 1895, 1 pag., in-4) Berlin 1895.
- *Ustilago Ficuum* Reich. = *Sterigmatocystis Ficuum* (Reich.) P. Henn. (Hedw. XXXIV, pgg. 86-87, in-8) Dresden 1895.

- Hennings P.** — Neue oder interessante Pilze aus dem K. Bot. Museum in Berlin, III (Hedw. XXXIV, pgg. 10-13, in-8) Dresden 1895.
- Beitrag zur Pilzflora des Samlandes (Schrift. Phys. ökon. Gesell. Königsberg XXXV, pgg. 85-90, in-8) Königsberg 1895.
 - Klasse Phycomycetes (Engler's, Ostafrika V, Pflanzenwelt C, pgg. 30-35, in-8) Berlin 1895.
 - Unterklasse Basidiomycetes (*ibid.* pgg. 48-61, in-8) Berlin 1895.
 - Fungi camerumenses. I (Engler's Bot. Jahrb. XXII pgg. 72-111, in-8) Leipzig 1895.
 - Fungi somalenses in expeditione Ru-spoliana a cl. D. Riva lecti (Ann. Ist. Bot. Roma, VI, 4 pgg. in-4) Roma 1895.
 - Fungi in Flora der Samoa-Inseln (Engler's Bot. Jahrb. XXIII pgg. 276-290, in-8, fig.) Leipzig 1896.
 - *Clavogaster* eine neue Gasteromyce-tengattung, sowie mehrere neue Agaricioineen aus Neu-Seeland (Hedw. XXXV pgg. 303-305, fig.) Dresden 1896.
 - Ueber exotische Pilze in den Gewächshäusern des Berliner Bot. Gartens (Verh. Bot. Ver. Prov. Brandenburg XXXVI, pag. XXXVI-XXXVII in-8) Berlin 1896.
 - Fungi camerumenses. II (Engler's Bot. Jahrb. XXIII, pgg. 537-558, in-8, 1 Taf.) Leipzig 1897.
 - Beiträge zur Pilzflora Südamerikas. II (Hedw. XXXVI, pgg. 190-246, in-8, 1 Taf.) Dresden 1897.
 - *Pleurotus importatus* n. sp. (Abh. Bot. Ver. Prov. Brandenburg XXXIX, 1 pag., in-8) Berlin 1897.
 - *Lentinus anisatus* n. sp. (Verh. Bot. Ver. Prov. Brandenburg XXXIX, pgg. XCV-XCVI, in-8) Berlin 1897.
 - Erster Beitrag zur Pilzflora der Um-
gend von Eberswalde (*ibid.* pgg. CVIII-CXVII, in-8) Berlin 1897.
- Hennings P.** — Verzeichnis von Hutpilzen aus der Umgebung von Strück und Belzig (*ibid.* pag. CXVIII) Berlin 1897.
- Fungi americano-boreales, jamaican-ses, centro-africani, turkestanici. (Hedw. XXXVII, pgg. 267-295, in-8) Dresden 1898.
 - Die Gattung *Diplothea* Starb., sowie einige interessante und neue von E. Ule gesammelte Pilze aus Brasilien (*ibid.*, pgg. 205-206, in-8) Dresden 1898.
 - Notiz über eine *Geopora*-Species von Meiningen (*ibid.*, 2 pgg., in-8) Dresden 1898.
 - Fungi novo-guineenses. III (Engler's Bot. Jahrb. XXV, pgg. 495-503, in-8) Leipzig 1898.
 - Ueber verschiedene neue und interessante märkische Pilzarten, besonders aus der Umgebung von Rathenow (Verh. Bot. Ver. Prov. Brandenburg XL, pgg. XXV-XXX, in-8) Berlin 1898.
 - Die in den Gewächshäusern des Berliner Bot. Gartens beobachteten Pilze (Abh. Bot. Ver. Prov. Brand. XL, pgg. 109-179, in-8, 2 Taf.) Berlin 1898.
 - Uredineae aliquot brasilianae novae a cl. E. Ule lectae (Hedw. XXXVIII, pgg. 123-130, in-8) Dresden 1899.
 - *Xylariodiscus* n. g. und einige neue brasilianische Ascomyceten des Uleschen Herbar (*ibid.*, pgg. (68)-(65), in-8) Dresden 1899.
 - Neue von E. Ule in Brasilien gesammelte Ustilagineen und Uredineen (*ibid.*, pgg. (65)-(71), in-8, figg.) Dresden 1899.
 - Fungi chilenses a cl. F. Neger collecti (*ibid.*, pgg. (71)-(73), in-8) Dresden 1899.
 - *Gyrocratera*, eine neue Tuberaceen-

- gattung, sowie einige neue und sel-
tenere Ascomyceten aus der Mark
(Verh. Bot. Ver. Prov. Branden-
burg XLI, pgg. VII-XI, in-8) Ber-
lin 1899.
- Hennings P.** — Einige neue und inter-
essante Ascomyceten aus der Um-
gebung von Rathenow (Abh. Bot.
Ver. Prov. Brand. XLI pgg. 94-99,
in-8, figg.) Berlin 1899.
- Fungi monsunenses I et II (*War-
burg* - Monsunia, Bd. I, pgg. 1-76,
in-8, 2 Taf.) Leipzig 1899.
 - Ueber das Vorkommen von *Clathrus
cancellatus* bei Berlin (Abh. Bot.
Ver. Prov. Brandenburg XLII, 1
pag. in-8) Berlin 1900.
 - Einige neue Agaricineen aus der
Mark (*ibid.*, pag. 67-69, in-8) Ber-
lin 1900.
 - Aufzählung der bei Oderberg (Mark)
am 27 und 28 Mai 1899 beobachte-
ten Pilze (*ibid.* pgg. 70-71, in-8)
Berlin 1900.
 - Einige neue auf Freilandpflanzen im
Berliner bot. Garten beobachtete
Pilze (Notizbl. K. Bot. Gart. u.
Mus. Berlin, n. 22, pgg. 37-40, in-
8) Berlin 1900.
 - Fungi austr.-americani a P. Dusen
collecti (Vetensk.-Akad. Förhandl.
1900, pgg. 317-330, in-8) Stock-
holm 1900.
 - Einige neue Geasterarten (Hedw.
XXXIX, 2 pgg. in-8) Dresden 1900.
 - *Cyttaria Reichi* n. sp. (*ibid.* pgg.
51-54, in-8, fig.) Dresden 1900.
 - Die Gattung *Pericladium* Pass. (*ibid.*
pgg. 75-76, in-8) Dresden 1900.
 - Basidiomycetes et Ascomycetes (in
Ber. üb. bot. Ergebn. d. Nyassa
See- und Kinga - Gebirgs - Expedit.
(Engler's Bot. Jahrb. XXVIII pgg.
335-336, in-8) Leipzig 1900.
 - Fungi Africae-orientalis (*ibid.* pgg.
318-329, in-8) Leipzig 1900.
 - Fungi japonici I et II (*ibid.*

XXVIII, pgg. 259-280 et XXIX,
pgg. 146-153, in-8) Leipzig 1900-
1901.

- Hennings P.** — Ueber einen schädlichen
Orchideenpilz: *Nectria bulbicola*
P. Henn. (Notizbl. K. bot. Gart.
Berlin, n. 25, pgg. 97-98, in-8) Ber-
lin 1901.
- Zwei bemerkenswerte *Pholiota*-Ar-
ten aus dem Berliner botanischen
Garten (Abh. Bot. Ver. Prov. Bran-
denburg XLIII, pgg. 119-120, in-
8) Berlin 1901.
 - Ueber einige auf *Andromeda poli-
folia* beobachtete Pilze (*ibid.* pgg.
102-104, in-8) Berlin 1901.
 - Verzeichnis der bei Lehnin am 1
und 2 juni beobachteten Pilze (Verh.
Bot. Ver. Prov. Brand. XLIII pgg.
XI-XII, in-8) Berlin 1901.
 - Fungi camerunenses novi. III (En-
gler's Bot. Jahrb. XXX pgg. 39-
57, in-8) Leipzig 1901.
 - Fungi (in A. Engler: Die von W.
Goetze am Rukwa- und Nyassa-See
etc. gesammelte Pflanzen) (*ibid.* pgg.
254-267, in-8) Leipzig 1901.
 - Fungi pardenses. I et II (Hedw.
XXXIX pgg. 76-80 et XLI pgg.
15-18, in-8) Dresden 1900, 1902.
 - Ueber Pilzabnormitäten (Hedw. XL
pgg. 136-140, in-8) Dresden 1901.
 - Aliquot fungi Africae borealis a cl.
G. Schweinfurth collecti (*ibid.* pgg.
98-101, in-8) Dresden 1901.
 - Anpassungs-Verhältnisse bei Uredi-
neen bezüglich der physikalischen
Beschaffenheit des Substrates (*ibid.*
pgg. 125-128, in-8) Dresden 1901.
 - Fungi Australiae occidentalis (*ibid.*
95-97 et 352-355, in-8 figg.) Dres-
den 1901.
 - Fungi Indiae orientalis. II (*ibid.*
pgg. 323-342, in-8) Dresden 1901.
 - Zwei javanische Gasteromyceten:
Pyrogaster n. g. (*ibid.*, 1 pag. in
8, fig.) Dresden 1901.

- Hennings P.** — Einige neue japanische Uredineen I-III (*ibid.* XL pgg. (25)-(26) et (124)-(125); XLI pgg. (18)-(21), in-8) Dresden 1901-1902.
- Beobachtungen über das verschiedene Auftreten von *Cronartium ribicola* Dietr. auf verschiedenen *Ribes*-Arten (Zeitschr. f. Pflanzenkr. XII, 4 pgg., in-8) Stuttgart 1902.
- Ueber die in der Neuanlage des botanischen Gartens in Dahlem bisher beobachteten interessanten Pilze (Abh. Bot. Ver. Prov. Brandenburg XLIV, pgg. 176-178, in-8) Berlin 1902.
- Fungi japonici. III et IV (Engler's Bot. Jahrb. XXXI, pgg. 34-46 et 728-742, in-8) Leipzig 1902.
- Fungi (in Kunene Sambesi-Expedition, pgg. 155-169, in-8) Berlin 1902.
- Fungi blumenavienses. II (Hedw., XLI, pgg. 1-23, in-8) Dresden 1902.
- Fungi nonnulli novi ex regionibus variis (*ibid.* pgg. 61-66, in-8) Dresden 1902.
- Fungi costaricensen. I (*ibid.* pgg. 101-105, in-8) Dresden 1902.
- Fungi S. Paulenses. I et II (*ibid.* pgg. 104-118 et 295-311, in-8) Dresden 1902.
- Einige Pilze aus dem Berliner botan. Garten (*ibid.* pgg. 135-139, in-8) Dresden 1902.
- Fungi javanici novi a cl. prof. Zimmermann collecti (*ibid.* pgg. 140-149, in-8) Dresden 1902.
- Eine neue norddeutsche Phalloidee: *Anthurus borealis* Burt. var. *Klitzingii* P. Henn. (*ibid.* pgg. 169-174 in-8, fig.) Dresden 1902.
- *Buttareopsis Artini* n. g., sowie andere von prof. G. Schweinfurth in Aegypten 1901-1902 gesammelte Pilze (*ibid.* pgg. 210-215, in-8, fig.) Dresden 1902.
- Schädliche Pilze auf Kulturpflanzen aus Deutsch-Ostafrika (Notizbl. K.

Bot. Gart. Berlin, n. 30, pgg. 239-243, in-8) Berlin 1903.

- Hennings P.** — Einige schädliche Blattpilze auf kultivierten Himalaja-Rhododendron (Gartenfl. III, pgg. 575-577, in-8) Berlin 1903.
- Fungi Africae orientalis. II et III (Engler's Bot. Jahrb. XXXIII, pgg. 34-40 et XXXIV pgg. 39-57, in-8) Berlin 1902-1903.
- Beitrag zur Pilzflora von Rheinsberg Verh. Bot. Ver. Prov. Brandenburg XLV, pgg. XII-XVIII, in-8) Berlin 1903.
- Einige Beobachtungen über das Gesunden pilzkranker Pflanzen bei veränderten Kulturverhältnissen (Zeitschr. f. Pflanzenkr. XIII, 4 pgg. in-8) Stuttgart 1903.
- Einige neue und interessante deutsche Pezizeen. II (Hedw. XLII pgg. 17-20, in-8) Dresden 1903.
- *Ruhlandiella berolinensis* n. g. et sp., eine neue deutsche Rhizinacee (*ibid.* pgg. 22-24, in-8, fig.) Dresden 1903.
- Fungi australienses (*ibid.* pgg. 78-88, in-8, figg.) Dresden 1903.
- Einige neue japanische Uredineen IV (*ibid.* pgg. 107-108, in-8) Dresden 1903.
- Beitrag zur Pilzflora des Gouvernements Moskau (*ibid.* pgg. 108-118, in-8) Dresden 1903.
- Einige deutsche Dungbewohnende Ascomyceten (*ibid.* pgg. 181-185, in-8, figg.) Dresden 1903.
- Zwei neue, Früchte bewohnende Uredineen (*ibid.* pgg. 188-189, in-8) Dresden 1903.
- Ueber die in Gebäuden auftretenden wichtigsten holzbewohnenden Schwämme (*ibid.* pgg. 178-191, in-8) Dresden 1903.
- Ueber einige interessante deutsche Hutpilze (*ibid.* pgg. 214-217, in-8, figg., 1 Taf.) Dresden 1903.

Hennings P. — Ueber die an Bäumen wachsenden heimischen Agarici-
neen (*ibid.*, pgg. 233-240, in-8) Dres-
den 1903.

- *Biatorellina* P. Henn. n. gen. Patel-
lariacearum (*ibid.*, pag. 307, in-8,
fig.) Dresden 1903.
- *Squamotubera* P. Henn. n. gen. Xy-
lariacearum (*ibid.* pgg. 308-309, in-
8) Dresden 1903.
- Ein stark phosphoreszierender java-
nischer *Agaricus* (*Myceena illumi-
nans* n. sp.) (*ibid.* pgg. 309-310 in-
8) Dresden 1903.
- Ein Sklerotien-Blättpilz: *Naucoria
tuberosa* n. sp. ad interim (*ibid.* pgg.
310-312, in-8, fig.) Dresden 1903.
- Einige in Berliner bot. Garten 1903
gesammelte neue Pilze (*ibid.* pgg.
218-221, in-8) Dresden 1903.
- Ueber *Cordiceps*-Arten, sogenannte
Tierpflanzen (Nerthus, VI: 4 pgg.
in-8, 1 Taf.) Kiel 1904.
- Fungi Africae orientalis. III (En-
gler's Bot. Jahrb. XXXIV, pgg.
39-57, in-8) Berlin 1904.
- Beitrag zur Pilzflora der Umgebung
Christianias (Halbinsel Bygdø) (Nyt
Magaz. f. Naturwiedensk. XLII,
pgg. 9-34, in-8) Christiania 1904.
- Zweiter Beitrag zur Pilzflora des
Gouvernements Moskau (Hedw.
XLIII, pgg. 66-73, in-8) Dresden
1904.
- Einige neue Pilze aus Japan. I et
II (*ibid.* pgg. 140-146 et 150-153,
in-8) Dresden 1904.
- Fungi Pluminenses a cl. E. Ule
collecti (*ibid.* pgg. 78-95, in-8)
Dresden 1904.
- Fungi amazonici. I-III (*ibid.* pgg.
154-186, 242-273, 351-400, in-8,
figg., 3 Taf.) Dresden 1904.
- Einige von Herrn G. Feurich, Göda
im Königreich Sachsen gesammelte
Sphaeropsidaceen (*ibid.* pgg. 432-
433, in-8) Dresden 1904.

Hennings P. — *Doassansia Renkaufii*
n. sp. auf *Hydrocharis Morsus-
ranae* (*ibid.*, pag. 434, in 8) Dresden
1904.

- *Cudoniella Mildbradii* n. sp. (*ibid.*
pgg. 430-431, in-8, fig.) Dresden
1904.
- Einige neue Pilze aus Costarica und
Paraguay (*ibid.* pgg. 147-149, in-8)
Dresden 1904.
- Fungi australiensis. II (*ibid.* pgg.
187-188, in-8) Dresden 1904.
- Fungi S. Paulenses. III (*ibid.* pgg.
197-209, in-8) Dresden 1904.
- Fungi Oranenses Hochreutinerani
(Ann. Conserv. et Jard. bot. Ge-
nève, VII-VIII, pgg. 242-243, in-
8) Genève 1904.
- Die Gattung *Aschersonia* Mont.
(Festschr. P. Ascherson's, pgg. 68-
72, in-8) Berlin 1904.
- Ueber sogenannte Hexenringe (Gar-
tenflora ? 1904) Berlin 1904.
- Ein neuer schädlicher Rostpilz auf
Blättern eines *Epidendrum* aus
Mexico: *Uredo Wittmakiana* P.
Henn. et Klitz. (Gartenflora ? 1904)
Berlin 1904.
- Fungi japonici V. (Engler's Botan.
Jahrb., XXXIV, pgg. 593-606, in-
8) Leipzig. 1904.
- Zwei neue Cudonieen aus der Um-
gebung Berlins (Verh. Bot. Ver.
Prov. Brandenburg, 1904, pgg. 115
et seq., 2 figg.) Berlin 1904.
- Phosphoreszierende Hutpilze (Ner-
thus, 1904, 2 pgg. in-8) Berlin 1904.
- *Phaeosphaerella Marcanthiae* n. sp.
(Abh. Bot. Ver. Prov. Brandenburg,
XLVI, pgg. 120-121, in-8) Berlin
1904.
- Einige schädliche parasitische Pilze
auf exotischen Orchideen unserer
Gewächshäuser (*ibid.*, XLIV, pgg.
168-178, in-8) Dresden 1905.
- Fungi amazonici IV (Hedw., XLIV,
pgg. 57-71, in-8, figg.) Dresden 1905.

- Hennings P. et Allescher A.** — Cfr. *Allescher*.
- Hennings P. et Lindau G.** — Verzeichniss der bei Templin am 20 maj 1894 beobachteten und gesammelten Pilze (Verh. Bot. Ver. Prov. Brandenburg XXXVI, pgg. XXXII XXXVI, in-8) Berlin 1904.
- Hennings P., Magnus P. et Bresadola J.** — Die von Herrn P. Sintenis auf der Inseln Portorico 1884-1887 gesammelten Pilze (Engler's Bot. Jahrb. XVII, pgg. 489-501, in-8, 1 Taf.) Leipzig 1893.
- Hennings P.** — Cfr. etiam *Schröter*.
- Herpell G.** — Preparation of fleshy fungi for the herbarium (Bull. Torr. Bot. Club, VIII, pgg. 32-34, in-8) New York 1881.
- Preparation of pileate fungi for the herbarium (*ibid.* pgg. 56-58, in-8) New York 1881.
- Hesse R.** — Zur Entwicklungsgeschichte der Hymenogastreen-*Leucogaster floccosus* n. sp. (Botan. Centralbl. XL, 15 pgg., in-8, 2 Taf.) Cassel 1889.
- Die Hypogaeen Deutschlands. II pars. Halle 1894.
- Heufler L. (von Hohenbühl).** — Specimen floræ cryptogamæ septem insularum. Fungi. (Verh. zool. - bot. Gesell. Wien 1861, pgg. 427-428, in-8) Wien 1861.
- Der *Fungus Laricis aureus* Matthioli's (Oesterr. Bot. Zeitschr. XX pgg. 193-199, in-8) Wien 1870.
- *Hydnum Schiedermayeri*, ein neues *Hydnum* aus Oberösterreich (*ibid.* 6 pgg., in-8) Wien 1870.
- Hick Th. et Cash W.** — Cfr. *Cash*.
- Hill W. H. F. et Mac Alpine D.** — Cfr. *Mac Alpine*.
- Hisinger Ed.** — *Peridermium Pini a corticola*, dödande *Pinus Strobus* (Bot. Notiser 1876, 1 pag. in-8) Lund 1876.
- Hisinger Ed.** — Om Klumproten - (2 pgg. in-8) Helsingfors 1883.
- Om trädskolors skyddande mot aker-sorkarnes härjningar (1 pag., in-8) Helsingfors? 1884.
- Hitchcock A. S. et Carleton M. A.** — Preliminary report on Rusts of Grain (Kansas St. Agric. Coll.; Bull. n. 38, 14 pgg. in-8, 3 pl.) Manhattan 1893.
- Hitchcock A. S. et Mac Bride T. H.** — Cfr. *Mac Bride*.
- Hohenbühl (von) Heufler L.** — Cfr. *Heufler*.
- Höhnel F. (von).** — Fragmente zur Mykologie (Sitzungsb. Akad. Wiss. in Wien; Math.-Naturw. Kl., CXI, 70 pgg., in-8) Wien 1903.
- Ueber einige Ramularien auf Dol-dengewächsen (Hedw. XLII, pgg. 176-178, in-8) Dresden 1903.
- Mykologische Irrtumsquellen (*ibid.* pgg. 185-188, in-8) Dresden 1903.
- Mykologische Fragmente (Annal. mycol. I, pgg. 391-414, 522-534, II pgg. 38-60, 271-277, in-8) Berlin-Potsdam 1903-1904.
- Hollós L.** — Uj Gasteromyceta Fajok Magyarországból (A. M. Tud. Akad. III, pgg. 504-512, in-8) Budapest 1901.
- Gasteromycetákra Vonatkozó Helyes-bítesek (Természetr. Füzetek XXV, pgg. 91-144 in-8) Budapest 1902.
- *Protomyces loculatus* Müll. in herb. (Növénytani Közlemények I, pgg. 155-156, in-8, fig.) Budapest 1903.
- *Geasteropsis* nov. gen. (*ibid.* II, pgg. 72-75, in-8, fig.) Budapest 1903.
- Két új Lycoperdon-faj (*ibid.* pgg. 75-76, in-8, fig.) Budapest 1903.
- Die Arten der Gattung *Disciseda* Czern. (Hedw. XLII, pgg. 20-23, in-8) Dresden 1903.
- Die Gasteromyceten Ungarns (278 pgg., in-fol., 31 Taf.) Leipzig 1904.

- Holmskiöld Th. — Coryphæi Clavarias Ramariasque. Lipsiæ 1797.
- Holtermann C. — Mykologische Untersuchungen aus den Tropen. (1 vol. in-4) Berlin 1893.
- Holway E. W. D. — Mexican fungi (Bot. Gaz. 1897, pgg. 23-38, in-8) Chicago 1897.
- Mexican fungi. III (*ibid.* XXXI (1901) pgg. 326-338, in-8) Chicago 1901.
- Photographing Uredineæ with the microscope (Journ. appl. Microsc. a. Labor. Methods, V, pgg. 1655-1656, in-8, figg.) Rochester 1901?
- Some erroneous references - et - *Puccinia inanipes* n. sp. (Bot. Gaz. XXXII, pgg. 421-422, in-8) Chicago 1901
- Notes on Uredineæ, II et III (Journ. of Mycol. X, pgg. 163-166 et 228, in-8, 2 pl.) Columbus 1904.
- Mexican Uredineæ (Annal. Mycol. II, pgg. 391-394, in-8, 1 pl.) Berlin 1904.
- Holway E. W. D. et Arthur J. C. — Cfr. *Arthur*.
- Holway E. W. D. et Ellis J. B. — Cfr. *Ellis*.
- Hoye Kr. — Undersogelser over klipfiskesoppen (Bergens Mus. Aarbog 1901, n. 7; 40 pgg. in-8, 5 pl.) Bergelund 1901.
- Humphrey J. E. — Notes on technique II (Bot. Gaz. 1891, pgg. 71-72, in-8) Chicago 1891.
- The Saprolegniaceæ of the United States, with notes on other species (Trans. Amer. Philos. Soc. XVII, pgg. 63-148, in-4, 7 pl.) Philadelphia 1892.
- Report of mycologist (Massach. St. Agric. Exp. Stat. 1892; 189 pgg., in-8; 5 pl.) Amherst 1892?
- On *Monilia fructigena*. (Bot. Gaz. XVIII, pgg. 85-93, in-8., 1 pl.) Chicago 1893.
- Inglese E. — Di un singolare caso di parassitismo del *Polyporus lucidus* sulla *Nicotiana Tabacum* (2 pgg. in-8, 1 tav.) Sansepolcro 1901.
- La *Peziza vesiculosa* nei semenzai di Tabacco (Boll. coltiv. Tabacchi Scafati, II, 3 pgg., in-8) Salerno 1903.
- Inui T. — Untersuchungen über die niederen Organismen welche sich bei der Zubereitung des alkoholischen Getränkes «Awamori» betheiligen (Journ. Coll. Sc. Univ. Tokyo, XV, pgg. 465-476, in-8, 1 Taf.) Tokyo 1901.
- Issatschenko B. — Ueber die parasitischen Pilze des Gouvernements Cherson (pgg. 219-244, in-8) S. Pétersbourg. 1896. (rossice).
- Istvánfi G. (de). — Etudes sur le Rot livide de la Vigne: *Coniothyrium Diplodiella* (Ann. Inst. centr. ampélol. hongr., II; 288 pgg., in-8, 24 pl.) Budapest 1902.
- Recherches microbiologiques sur quelques maladies des arbres fruitiers et de la Vigne (VII Congrès intern. Agric., Rome 1903, 12 pgg., in-8) Rome 1903.
- Deux nouveaux ravageurs de la Vigne en Hongrie (Ann. Inst. centr. ampélol. hongr., III, 55 pgg., in-8, 3 pl.) Budapest 1904.
- Iwanoff K. S. — Ueber *Trichothecium roseum* als Ursache der Bitterfäule von Früchten (Zeitschr. Pflanzenkr. XIV, 5 pgg., in-8, fig.) Stuttgart 1904.
- Jaap O. — Verzeichnis der bei Triglitz in der Prignitz beobachteten Peronosporéen und Exoascéen (Abh. Bot. Ver. Prov. Brandenburg XXXIX, pag. 70-74, in-8) Berlin 1897.
- Zur Pilzflora der Insel Sylt (Schriften Naturw. Ver. Schlesw.-Holst.,

- XI, pgg. 260-266, in-8) Kiel 1893.
- Jaap O.** — Aufzählung der bei Lenzen beobachteten Pilze (Abh. Bot. Ver. Prov. Brandenb. XLI, pgg. 5-18, in-8) Berlin 1899.
- Verzeichnis der bei Triglitz in der Prignitz beobachteten Ustilagineen, Uredineen und Erysipheen (*ibid.*, XLII, pgg. 261-270, in-8) Berlin 1900.
- Pilze bei Heiligenhafen (Schriften Naturw. Ver. Schlesw.-Holst., XII, 7 pagg., in-8) Kiel 1901.
- Zu Kryptogamenflora der nordfriesischen Insel Röm. (*ibid.*, 32 pgg., in-8, fig.) Kiel 1902.
- Bericht über die im Auftrage des Vereins unternommene botanische Excursion nach Wittstock und Kyritz (Verh. Bot. Ver. Prov. Brandenb., XLIV, pgg. 118-138, in-8) Berlin 1902.
- Fungi selecti exsiccati IV (Allg. Bot. Zeitschr., 1904; 1 pag., in-8) Karlsruhe 1904.
- Jacky E.** — Die Compositen-bewohnenden Puccinien von Typus der *P. Hieracii* und deren Spezialisierung (81 pgg., in-8, figg.) Bern 1899.
- Untersuchungen über einige Schweizerische Rostpilze (Ber. Schweiz. Bot. Gesell. 1899, 30 pgg., in-8) Bern 1899.
- I. Beitrag zur Pilzflora Proskau's (Schlesische Gesell. f. vaterl. Cult., zool.-bot. Sect., 1900; 30 pgg. in-8) Breslau 1900.
- Beitrag zur Kenntnis der Rostpilze (Centralbl. Bakt. etc., IX, pgg. 796-804 et 841-844, in-8) Jena 1902.
- Jacobasch E.** — *Coprinus cupulatus* n. sp. (Verh. Bot. Ver. Prov. Brandenb., XXXIV, pgg. XXXI-XXXIII, in-8) Berlin 1893.
- Jaczewski A. (de)** — Monographie du genre *Sphaeronema* (Nouv. Mem., XV, 112 pgg., in-8, 1 pl.) Moscou 1896.
- Jaczewski A. (de)** — Matériaux pour la Flore mycologique du gouvernement de Smolensk III, et IV (Bull. Soc. imper. Natur. Moscou, 1896, pgg. 65-94; 1897, pgg. 421-436, in-8) Moscou 1896-97.
- Janczewski E. (de)** — Polymorphisme du *Cladosporium herbarum* Lk. (Bull. Acad. Sc. de Cracovie 1892, 6 pgg., in-8) Cracovie 1892.
- Les périthèces du *Cladosporium herbarum* (*ibid.* 1893, pgg. 271-273, in-8) Cracovie 1893.
- Sur la forme ascosporée de l'*Oidium Tuckeri* (Arch. Sc. phys. et nat., III sér., t. XXXII, 4 pgg., fig.) Genève 1894.
- Florule cryptogamique d'Ecône (Valais) (Arch. Sc. Phys. et Nat., pgg. 127-130, in-8) Genève, (s. a.)
- Recherches sur le *Cladosporium herbarum* et ses compagnons habituels sur les céréales (Rozpr. Wydz. Mat. Przyr., t. XXVII, 22 pgg., in-8, 4 pl.) Krakowie 1894.
- Jarius M.** — Untersuchungen über *Ascochyta Pisi* bei parasitischer und saprophyter Ernährung (Bibl. Botan., Hft. 34, 22 pgg., in-4, 1 Taf.) Königsberg 1896.
- Johnston J. R.** — On *Cauloglossum transversarium* Fr. (Proceed. Am. Acad. Arts and Sc. XXXVIII, pgg. 61-76, in 8, 1 pl.) Boston 1902.
- Johow Fr.** — Die Gruppe der Hymenolichenen (Engler's Bot. Jahrb. XV, pgg. 361-409, in-8; 5 Taf.) Leipzig 1883.
- Johow Fr. et Neger.** — Estudios sobre la flora de J. Fernandes. Santiago 1896.
- Juel H. O.** — Bidrag till kannedomen om Skandinaviens *Synchytrium*-arter (Bot. Notiser, 1893, pgg. 245-246, in-8) Lund 1893.

- Juel H. O. — On nagra heteroeciska Urediner (*ibid.* pgg. 51-57, in-8, fig.) Lund 1893.
- Mykologiske Beiträge I et II (K. Vetensk. - Akad. Förhandl. 1894, pgg. 409-418 et 491-502, in-8, fig.) Stockholm 1894.
- Mykologiske Beiträge IV: *Aecidium Sommerfeltii* und seine *Puccinia*-Form. (*ibid.* 1895, pgg. 379-386, in-8) Stockholm 1895.
- *Hemigaster*, ein neuer Typus unter den Basidiomyceten (Bihang till K. Vet. Akad. Handl., Bd. XXI; 22 pgg., in-8, 2 Taf.) Stockholm 1895.
- Vorläufige Mittheilung über *Hemigaster* (Bot. Centralbl. 1895, 2 pgg. in-8) Cassel 1895.
- Mykologiske Beiträge V (K. Vetensk. Akad. Förhandl. 1896, pgg. 213-224, in-8, figg.) Stockholm 1896.
- Die Ustilagineen und Uredineen der ersten Regnell'schen Expedition (K. Svenska Vet. - Akad. Handl. XXIII, 30 pgg., in-8, 4 Taf.) Stockholm 1897.
- *Stilbum vulgare* Tode, ein bisher verkannter Basidiomycet (*ibid.* XXIV, 15 pgg., in-8, 1 Taf.) Stockholm 1898.
- Mykologiske Beiträge VI (K. Vetensk.-Akad. Förh. 1899, pgg. 5-20, in-8, fig.) Stockholm 1899.
- Contributions a la flore mycologique de l'Algerie et de la Tunisie (Bull. Soc. Myc. Fr. XVII, pgg. 257-273, in-8, figg.) Paris 1901.
- *Pyrthosorus*, eine neue marine Pilzgattung (K. Svenska Vet.-Akad. Handl. XXVI, 16 pgg., in-8, 1 Taf.) Stockholm 1901.
- *Taphridium Lagerh.* et Juel, eine neue Gattung der Protomycetaceen (*ibid.* XXVII, 29 pgg., in-8, 1 Taf.) Stockholm 1902.
- Karsten P. A. — Strödda meddelanden (Not. Fauna et Flora Fennica XIII pgg. 446-450, in-8) Helsingfors 1874.
- *Pyrenomyces aliquot novi* (Medd. af Soc. pro Fauna et Fl. Fennica 1878, pgg. 33-48, in-8) Helsingfors 1878.
- *Fungi aliquot novi* in Turkestan a D.^e Walther lecti (Hedw. 1887, 1 pag. in-8) Dresden 1887.
- *Mycetes aliquot* in Mongolia et China boreali a cl. C. N. Potonin lecti (*ibid.* 1892, pgg. 38-40, in-8) Dresden 1892.
- *Fragmenta mycologica XXXVII-XXXIX* (*ibid.* pgg. 218, 292, 297, in-8) Dresden 1902.
- *Symbolæ ad mycologiam fennicam XXXII* (Acta Soc. Fauna et Fl. Fennica, IX; 9 pgg., in-8) Helsingfors 1892.
- Finlands Mögelswampar (192 pgg., in-8) Helsingfors 1892.
- *Fungi novi, paucis exceptis*, in Sibiria a cl. O. A. F. Loennbohm collecti (Finska Vetensk. Soc. Förh. XLVI, 9 pgg. in-8) Helsingfors 1904.
- Karsten P. A., Roumeguère C. et Harriot M. P. — *Fungilli novi* (Rev. Mycol. 1890, 2 pgg. in-8) Toulouse 1890.
- Kellerman W. A. — Report of botanical Department (First ann. Rep. Kansas Exper. Stat. 1888, pgg. 281-351, in-8, 6 pl.) Topeka? 1888.
- Experiments with Sorghum Smuts et Corn Smut (Exp. Stat. Kansas St. Agr. Coll., Bull. n. 23, pgg. 95-105, in-8, 3 pl.) Topeka 1891.
- A new species of *Peronospora* (Journ. of Mycol., X, pgg. 171-172, in-8, 1 pl.) Columbus 1904.
- Cultures of *Puccinia Thompsonii* Hume (*ibid.*, X, pgg. 173-174, in-8) Columbus 1904.
- Kellerman W. A. et Ellis J. B. — Cfr. Ellis.
- Kabat J. E. et Bubák F. — Cfr. Bubák.

- Kelsey F. D. et Ellis J. B. — Cfr. *Ellis*.
- Kent W. — The Myxomycetes or Mycetozoa; animals or plants? (Popul. So. Review, V, pgg. 97-116, in-8, 2 pl.) London 1881.
- Kern E. — Ueber *Caeoma pinitorquum* A. Br. (Bull. Soc. Nat. Moscou 1883, pgg. 250-260, in-8, 4 Taf.) Moscou 1883.
- Kerville, Gadeau H. (de) — Cfr. *Gadeau*.
- Kieffer J. J. — Matériaux pour servir a la Mycologie de Bitché (Bull. Soc. Hist. Nat. Metz, XVIII; 23 pgg. in-8) Metz 1892.
- Mycécécidies de Lorraine (Feuille d. Jeun. Natural.; 12 pgg., figg.) Paris, (sine anno).
- Kienitz-Gerloff F. — Die Gonidien von *Gymnosporangium clavariiforme* (Bot. Zeit. 1888, 2 pgg., in-8, 1 Taf.) Leipzig 1888.
- Kihman O. — Zur Entwicklungsgeschichte der Ascomyceten (Acta Soc. Sc. Fenn. XIII, 43 pgg., in-8, 2 Taf.) Helsingfors 1888.
- Kirchner O. — Ueber das Absterben junger *Cytisus*-Pflanzen (Zeitschr. f. Pflanzenkr. II, pgg. 324-327, in-8, figg.) Stuttgart 1892.
- Kirchner O. et Eichler J. — Beiträge zur Pilzflora von Württemberg (Jahreh. Ver. f. vaterl. Naturk. Württ., L, pgg. 291-492 et LII, pgg. 173-254, in-8) Württemberg 1894-1896.
- Klebahn H. — Zur Kenntnis der Schmarotzer-Pilze Bremens und Nordwestdeutschland, II (Schrift. Naturf. Ver. Bremen XII, pgg. 361-376, in-8) Bremen 1892.
- Kulturversuche mit heterocischen Uredineen, I et II (Zeitschr. f. Pflanzenkr. II, pgg. 258, 332, et IV, pgg. 7, 85, 129, in-8, 1 Taf.) Stuttgart 1892-1894.
- Klebahn H. — Bemerkungen über *Rhizisma acerinum* etc. (Bot. Centralbl. LVIII, 3 pgg., in-8) Cassel 1894.
- Ueber eine krankhafte Veränderung der *Anemone nemorosa* und über einen in den Drüsenhaaren derselben lebenden Pilz (Ber. deutsch. bot. Gesell. XV, pgg. 527-536, in-8, 1 Taf.) Berlin 1897.
- Die wirtswechselnden Rostpilze (pgg. I-XXXVII et 1-444; in-8) Berlin 1904.
- Klöcker A. — *Gymnoascus flavus* n. sp. (Hedw. XLI, pgg. 80-83, in-8, 1 Taf.) Dresden 1901.
- Eine neue *Saccharomyces*-Art (*S. Saturnus*) mit eigenthümlichen Sporen (Centralbl. Bakt. etc. VIII, pgg. 129-130, in-8) Jena 1902.
- Kolkwitz R. — Zur Biologie von *Leptomitilus lacteus* (Ber. deutsch. bot. Gesell. XIX, pgg. 288-291, in-8) Berlin 1901.
- Kölliker A. — On the frequent occurrence of vegetable parasites in the hard tissues of the lower animals (Journ. Microsc. Science 1860, pgg. 171-187, in-8, 1 pl.) London 1860.
- Kolpin R. F. — Nogle *Helminthosporium*-Arter og de af dem fremkaldte sygdomme hos byg Havre (220 pgg., in-8, 2 Taf.) Kiøbenhavn 1900.
- Koning C. J. et Oudemans C. A. J. A. — Cfr. *Oudemans*.
- Korzhinsky S. — Uredinæ Gubernii Kasanensis (25 pgg., in-8) Kasan 1885.
- Král — Der gegenwärtige Bestand der Král'schen Sammlung von Microorganismen I-III (Kral's Bacter. Labor. pgg. 1-34, 1-37 et 5 Taf.; 1-39 et 5 Taf.) Prag 1900, 1901, 1902.
- Kruch O. — Sopra un caso di deformazione (scopazzo) dei rami dell' Elce. Nota preliminare (Malp. IV, pgg. 424-430, in-8) Genova 1891.

- Kruch O.** — Sulla presenza del *Cycloconium oleaginum* Cast. in Italia (Bull. Soc. Bot. it. 1892, pgg. 177-180, in-8) Firenze 1892.
- Studio anatomico di un zoocecidio del *Pieridium vulgare* (Malp. V, 19 pgg., in-8, 1 tav.) Genova 1892.
- Le deformazioni dei rami dell' Elce prodotte dall' *Exoascus Kruchii* Vuill. (Lav. e Relaz. Staz. Pat. veget. Roma, 1893; 9 pgg., in 8, 2 tav.) Roma 1893.
- Lacaille A.** — Énumération des Champignons qui croissent sur les feuilles des végétaux dans l'arrondissement du Havre et principalement à Bolbec (Bull. Soc. Sciences et Arts de Vitry-le-François, 1877, pgg. 55-84, in-8) Rouen 1879.
- Lagarde J.** — Hyménomycètes des environs de Montpellier (Bull. Soc. Mycol. Fr. XVII, 56 pgg., in-8, 2 pl.) Paris 1901.
- Champignons du massif du Ventoux (*ibid.*, XVIII, 52 pgg., in-8) Paris 1902.
- Lagarde J. et Pavillard J.** — Myxomycètes des environs de Montpellier (*ibid.* XIX, 25 pgg., in-8, 1 pl.) Paris 1903.
- Lagerheim G.** — The relationship of *Puccinia* and *Phragmidium* (Journ. of Mycol., VI, pgg. 111-113, in-8) Washington 1890.
- Notes sur quelques Uredinées de l'herbier de Westendorp (Bull. Soc. roy. Botan. de Belgique, t. XXIX, 5 pgg., in-8) Bruxelles 1891.
- Mykologiska Bidrag VIII: Ueber *Puccinia lanunculi* A. Blytt (Botaniska Notiser, 1892, pgg. 167-170, in-8) Lund 1892.
- *Mastigochytrium*, eine neue Gattung der Chytridiaceen (Hedw. 1892, pgg. 185-189, in-8, 1 Taf.) Dresden 1892.
- Lagerheim G.** — *Dipodascus albidus*, eine neue geschlechtliche Hemiascee (Jahrb. f. wissensch. Bot., Bd. XXIV, 19 pgg., in-8, 3 Taf.) Berlin 1892.
- Uredineæ Herbarii Eliæ Fries (Tromsø Museums Aarsh. 17 (1894) pgg. 25-132, in-8) Upsala 1895.
- Mykologische Studien. I: Beiträge zur Kenntniss der parasitischen Pilze (K. Vet. Akad. Handl., Bd. XXIV; 21 pgg., in-8, figg., 3 Taf.) Stockholm 1898.
- Ueber ein neues Vorkommen von Vibrioiden in der Pflanzenzellen (*ibid.* 1899, 9 pgg., in-8) Stockholm 1899.
- En Svampepidemi på Blådlöss sommarens 1895 (Entomologisk Tidskr. 1899, pgg. 127-132, in-8) Stockholm 1899.
- Ueber *Lasius fuliginosus* und seine Pilzzucht (*ibid.* 1900, 13 pgg., in-8, figg.) Stockholm 1900.
- Mykologische Studien III: Beiträge zur Kenntniss der parasitischen Bacterien und der Bacterioiden Pilze (K. Svenska Vet.-Akad. Handl., Bd. XXVI; 21 pgg., in-8, figg., 1 Taf.) Stockholm 1900.
- Bemerkungen zu *Fusamen deformans* (Schröt.) Karst. (Tromsø Mus. Aarsh. 1900, 2 pgg., in-8) Upsala 1900.
- Zur Kenntniss der *Bulgaria globosa* (Schm.) Fr. (*Sarcosoma globosum* et *S. platydiscus* Auct.) (Botan. Notiser 1903, pgg. 249-267, in-8, 1 tab.) Lund 1903.
- Om af Svamp angripna fikon och dadlar (*Sterygmatozystis Ficuum* (Reich.) Henn.) (Svensk Farmaceutisk Tidskr. 1903, 6 pgg., in-8, figg.) Stockholm 1903.
- Lagerheim G. et Patouillard N.** — *Sirobasidium*, nouveau genre d'Hyménomycètes hétérobasidiés (Journ.

- de Bot. 1892, 6 pgg., in-8, figg.) Paris 1892.
- Lagerheim G. et Patouillard N.** — Cfr. *Patouillard*.
- Lagerheim G. et Wagner G.** — Bladfläcksjuka a potatis (*Cercospora concors* (Casp.) Sacc.) (Landbruks-Akad. Handl. och Tidskr., 1903, pgg. 6-13, in-8, 2 Taf.) Stockholm 1903.
- Lamarlière (Geneau, De).** — Cfr. *De Lamarlière*.
- Lambotte E.** — Sur les organes sexuels des Erysiphées (Rev. Mycol. 1894, 3 pgg., in-8, 1 pl.) Toulouse 1894.
- Lambotte E. et Fautrey F.** — Cfr. *Fautrey*.
- Lanzi M.** — I funghi della provincia di Roma (Atti Accad. Pontif. Nuovi Lincei; 7 fasc. in-4.) Roma 1879-1894.
- Sull' *Agaricus algeriensis* (*ibid.*, t. XLVI, 1 pag. in-4) Roma 1893.
- Funghi mangerecci e nocivi di Roma (in-4, pgg. 1-406, 131 tav.) Roma 1896-1902.
- I funghi nocivi (Mem. Accad. Pontif. Nuovi Lincei, vol. XLIX, 28 pgg. in-4) Roma 1897.
- Il « Trattato dei Funghi » anonimo pubblicato in Roma nel 1792 (Atti Accad. Pontif. Nuovi Lincei, an. LI, 2 pgg. in-4) Roma 1898.
- Valore dei caratteri somministrati dalle spore negli Imenomiceti (*ibid.*, 4 pgg. in-4) Roma 1898.
- Serbatoi e canali laticiferi dei funghi (*ibid.*, LVI, 3 pgg. in-4) Roma 1903.
- Laplanche M. C. (de).** — Dictionnaire iconographique des Champignons supérieurs (Hyménomycètes) qui croissent en Europe, Algérie et Tunisie (vol. in-8, Paris 1894).
- Laterrade J. Fr.** — Rapport sur une nouvelle espèce d'Agaric: *Ag. Brondei* (Actes Acad. imp. de Bordeaux, 1851, 7 pgg. in-8, 2 pl.) Bordeaux 1854.
- Laubert R.** — *Ascochyta caulicola*, ein neuer Krankheitserreger des Steinklees (Arbeit. aus biol. Abth. f. Land- u. Forstwirtschaft. am Keis. Gesundheitsamte, Bd. III, pgg. 441-443, in-8, figg.) Berlin 1903.
- Eine neue sehr verbreitete Blattfleckenkrankheit von *Ribes alpinum* (Naturw. Zeitschr. f. Land- u. Forstwirtschaft. 1904, 3 pgg., in-8, figg.) Stuttgart 1904.
- Lázaro B.** — Nuevos hongos de España (Bol. Soc. espan. de Hist. Nat., t. II, pgg. 117-119 et 152-159, in-8, 2 tab.) Madrid 1902.
- Le-Breton A.** — Compte rendu de la Session extraordinaire de la Société mycologique de France tenue a Rouen du 15 au 20 octobre 1891 (Bull. Soc. des Amis des Sc. Nat. de Rouen, 1891, pgg. 145-169, in-8) Rouen 1892.
- Le-Breton A. et Niel E.** — Champignons nouveaux ou peu connus récoltés en Normandie (*ibid.* 1904, pgg. 129-170, in-8, 1 pl.) Rouen 1894.
- Leighton W. A.** — On two new species of the genus *Mycoporium* (Linn. Soc. Journ. - Bot., vol. XIII, pgg. 326-328, in-8, 1 pl.) London 1872.
- Lemée E.** — Les ennemis des plantes. Bull. Soc. Hort. de l'Orne, 1903-1905) Alençon 1903-1905.
- Lemmermann E.** — Erster Beitrag zur Pilzflora der ostfriesischen Inseln (Abh. Nat. Ver. Bremen, Bd. XVI, pgg. 440-452, in-8) Bremen 1900.
- Zweiter Beitrag etc. (*ibid.*, Bd. XVII, pgg. 169-184, in-8) Bremen 1901.
- Die parasitische und saprophytische Pilze der Algen (*ibid.*, Bd. XVII, pgg. 185-202, in-8) Bremen 1901.
- Lendner A.** — Des influences combinées de la lumière et du substratum sur

- le développement des Champignons (Ann. Sc. Nat., VIII sér., t. III, 64 pgg. in-8) Genève 1897.
- Lenticchia A.** — Prima contribuzione alla micologia del Monte Generoso (Bull. Soc. Bot. ital. 1896, pgg. 46-56; in-8) Firenze 1896.
- Seconda contribuzione etc. (*ibid.* 1899, pgg. 293-300, in-8) Firenze 1899.
- Lenz H.** — Die Schwämme. Gotha 1879.
- Lesage P.** — Germination des spores de *Penicillium* dans l'air alternativement sec et humide (Associat. franc. pour l'Avancem. des Sc. — Opt. rend. 30 Sess. à Ajaccio 1901, pgg. 489-493, in-8) Paris 1902.
- Lévillé J. H.** — Iconographie des Champignons de Paulet, (vol. in-4) Paris 1855.
- Lindau G.** — Die heutige Morphologie und Systematik der Pilze (Naturw. Wochenschr., Bd. VII, pgg. 369-386, in-4, figg.) Berlin 1892.
- Vorstudien zu einer Pilzflora Westfalens (Jahresb. Westfälisch. Provinzialver. f. Wissensch. u. Kunst 1891; 70 pgg. in-8) Münster 1892.
- Bemerkungen über Bau und Entwicklung von *Aecidium Englerianum* (Engler's Botan. Jahrb., Bd. XVII, pgg. 43-47, in-8, 1 Taf.) Leipzig 1893.
- Ueber Bau und systematische Stellung von *Ditiotia radicata* (Hedw., Bd. XXXIII, pgg. 234-240, in-8, 1 Taf.) Dresden 1894.
- Der Epheukrebs (Zeitschr. f. Pflanzenkr., Bd. IV, pgg. 1-3, in-8, 1 Taf.) Stuttgart 1894.
- Die Beziehungen der Flechten zu den Pilzen (Hedw., Bd. XXXIV, pgg. 195-204, in-8) Dresden 1895.
- Zwei neue deutsche Pilze (Hedw., Bd. XXXV, pgg. 56-57, in-8) Dresden 1895.
- Bemerkungen über die heutige Systematik der Pilze (Botan. Centralbl. LXX, 11 pgg., in-8) Cassel 1897.
- Lindau G.** — Ein Beitrag zur Kryptogamenflora von Rügen (Hedw., Bd. XXXVI, pgg. 151-157, in-8) Dresden 1897.
- Zur Entwicklung von *Empusa Aulica* Reich. (*ibid.*, pgg. 291-296, in-8, fig.) Dresden 1897.
- *Nectria Westhoffiana*, ein neuer Pilz Westfalens (Jahresb. XXV Westfälisch. Prov. — Ver. f. Wissensch. u. Kunst; 1 pag., in-8) Münster 1897.
- Ueber Insecten-bewohnende Pilze (Naturwiss. Wochenschr., Bd. XII, pgg. 304-307, in-4, fig.) Berlin 1897.
- Ueber eine in Berliner botanischen Garten beobachtete Raupenkrankheit (Verhandl. botan. Ver. Brandenburg., XXXIX, 1 pag., in-8) Berlin 1897.
- Hilfsbuch für das Sammeln parasitischer Pilze. Berlin 1901.
- Beobachtungen über den südafrikanischen Heuschreckenpilz (Locust Fungus) (Notizbl. k. botan. Gartens u. Museums zu Berlin, n. 26, pgg. 119-126, in-8, 1 Taf.) Berlin 1901.
- Beiträge zur Pilzflora des Harzes (Abhandl. bot. Ver. Prov. Brandenburg., XLV, pgg. 149-161, in-8, figg.) Berlin 1903.
- Beitrag zur Kenntniss eines im Wasser lebenden Discomyceten (Ascherson's Festschr. pgg. 482-486, in-8, figg.) Berlin 1904.
- *Aspergillus (Sterigmatocystis) Strychnii* n. sp. (Hedw., Bd. XLIII, pgg. 306-307, in-8) Dresden 1904.
- Fungi imperfecti (*Hyphomycetes*) in Rabenhorst's Kryptogamen-Flora. Leipzig 1904 et seq.
- Ueber das Vorkommen des Pilzes des Taumellolchs in altägyptischen Samen (Sitzungsber. k. preuss. Akad.

- d. Wissensch., XXXV, pgg. 1031-1036, in-8, figg.) Berlin 1904.
- Lindau G. et Hennings P. — Cfr. *Hennings P.*
- Lindau G. et Saccardo P. A. — Cfr. *Saccardo P. A.*
- Lindau G. et Sydow P. — Elenchus fungorum novorum qui anno 1897 usque ad 1 Jan. 1898 innotuerunt, adjectis additamentis (Hedw., Bd. XXXVII, pgg. I-LVII, in-8) Dresden 1898.
- Cfr. etiam *Schroeter.*
- Lindner P. — Ueber eine in *Aspidiotus Nerii* parasitisch lebende Apiculatushefe: *Saccharomyces apiculatus parasiticus* (Centralbl. f. Bakter. etc 1895) Jena 1895.
- Gährversuche mit verschiedenen Hefen- und Zuckerarten (Wochenschr. f. Brauerei, 1900, 11 pgg. in fol.) Berlin 1900.
- Mikroskopische Betriebskontrolle in den Gärungsgewerben 3^e Aufl. (pgg. I-XII et 1-463, 229 figg. et 4 Taf.) Berlin 1901.
- Sporenbildung bei *Saccharomyces apiculatus* (Wochenschr. f. Brauerei, 1903, 2 pgg., in fol., figg.) Berlin 1903.
- Lindroth J. I. — Anmärkningsvärda rost- och brandsvampar från Åland och Tavastland (Meddel. Soc. pro Fauna et Flora Fennica, H. 24, pgg. 106-108, in-8) Helsingfors 1900.
- Mykologiske Notizen (Bot. Notiser, 1900, pg. 241-255, in-8) Lund 1900.
- On *Aecidium Trientalis* Tranzsch (*ibid.* pgg. 193-199, in-8, figg.) Lund 1900.
- Uredineæ novæ (Meddel. Stockh. Högskolas botan. Instit., Bd. IV, 8 pgg. in-8) Stockholm 1901.
- Mykologiske Mitteilungen (Acta Soc. pro Fauna et Flora Fenn. XX, 29 pgg., in-8, 1 Taf.) Helsingfors 1901.
- Lindroth J. I. — Die Umbelliferen-Uredineen (*ibid.*, XXII, 224 pgg., in-8, 1 Taf.) Helsingfors 1901.
- Verzeichnis der aus Finland bekannten *Ramularia*-Arten (*ibid.*, XXIII, 42 pgg., in-8) Helsingfors 1902.
- Lindsay W. L. — Notes on some african Lichens and Fungi (Edinburgh Bot. Soc. Trans. vol. VIII, pgg. 373-380, in-8, figg.) Edinburgh 1866.
- On a new species of *Melampsora* from Otago, New Zealand (*ibid.*, pgg. 426-430, in-8, fig.) Edinburgh 1866.
- Linhart G. et Mezey G. — Szölöbetg-ségek (Cryptogamæ parasiticæ) Magyar-Ovár 1895.
- Lister A. — A Monograph of the Mycetozoa. — London 1894.
- Lloyd C. G. — Second Report on the Lloyd Mycological Museum, for the years 1895 and 1896 (8 pgg. in-8) Cincinnati, Oh. 1896.
- A Compilation of the Volvæ of the United States (22 pgg. in-8, figg.) Cincinnati 1893.
- Mycological Notes. Cincinnati, Oh. 1893-1904.
- The genera of Gastromycetes (24 pgg., in-8, figg., 11 pl.) Cincinnati, Oh. 1902.
- The Geastræ (43 pgg., in-8, figg.) Cincinnati, Oh. 1902.
- Long W. H. — Texas Fungi I (Bull. Torrey Bot. Club, XXIX, pgg. 110-116, in-8) New York 1902.
- Lopriore G. — Studi di Patologia vegetale (Boll. Notizie Agrar. 1893, 16 pgg., in-8, 1 tav.) Roma 1893.
- Die Schwärze des Getreides (Landwirtsch. Jahrb. XXIII, 40 pgg., in-8, 2 Taf.) Berlin 1894.
- La ruggine dei Crisantemi (Nuova Rassegna 1901, 8 pgg., in-8) Catania 1901.

- Lucet et Costantin J. — *Rhizomucor parasiticus*, espèce pathogène de l'homme (Rev. Gén. Bot., t. XII, pgg. 81-98, in-8, 1 pl.) Paris 1900.
- Lüdi R. — Beiträge zur Kenntniss der Chytridiaceen (Hedw., Bd. XL, pgg. 1-44 et 180-189 in-8, 2 Taf.) Dresden 1901.
- Ludwig F. — Mykologische Mitteilungen (Verh. Botan. Ver. Prov. Brandenburg. XXXI, pgg. VII-IX, in-8, fig.) Berlin 1890.
- Ein neuer Pilzfluss der Waldbäume und der *Ascobolus Costantini* Roll. (Forstl. - naturw. Zeitschr., 1893, 3 pagg., in-8) München 1893.
 - Ueber einige Rost- und Brandpilze Australiens (Zeitschr. f. Pflanzenk., Bd. III, pgg. 137-139, in-8) Stuttgart 1893.
 - Ueber einen neuen pilzlichen Organismus in braunen Schleimflüssen der Rosskastanie: *Eomyces Crieanus* n. g. et sp. (Centralbl. f. Bakter. etc., Bd. XVI, pgg. 905-908, in-8, fig.) Jena 1894.
- Lutz L. — Champignons récoltés en Corse pendant les mois de Juin et Juillet 1900 (Bull. Soc. Myc. Fr., t. XVII, pg. 121-122, in-8) Paris 1901.
- Mac Alpine D. — Botanical nomenclature, with special reference to the Fungi (Australasian Assoc. for the Advancem. of Science, Meet. of Adelaide 1893, 7 pgg., in-8) Adelaide 1893.
- Australian Fungi (Roy. Soc. of Victoria, 1894, pg. 214-221) Melbourne 1894.
 - Report on rust in wheat experiments 1892-93 (Depart. of Agric. Victoria 1894; 66 pgg., in-8, 7 pl.) Melbourne 1894.
 - Australian Fungi (Agricultur. Gazette, vol. VI: 15 pgg. 8, 3 pl.) Sydney 1895-96.
- Mac Alpine D. — Notes on *Uromyces Amygdali* Cooke a synonym of *Puccinia Pruni* Pers. (Proceed. Linn. Soc. of New South Wales, vol. X, ser. 2, pgg. 440-460, in-8, 3 pl.) Sydney 1895.
- *Puccinia* on Groundsel, with trimorphic teleutospores (*ibid.* pgg. 461-468, in-8, 3 pl.) Sydney 1895.
 - *Meliola amphitricha* Fr. (*ibid.*, vol. X, pg. 439, in-8, fig.) Sydney 1895.
 - Systematic arrangement of Australian fungi. Melbourne 1895.
 - Australian Fungi (Agricult. Gazette of N.-S.-Wales, 1896, 3 pgg., in-8, 2 pl.) Sydney 1896.
 - The sooty mould of *Citrus* trees: a study in polymorphism (*Capnodium citricolum* n. sp.) (Proceed. Linn. Soc. of N.-S.-Wales, 1896, pgg. 469-499, in-8, 2 pl.) Sydney 1896.
 - Two additions to the fungi of New South Wales (*ibid.*, pgg. 722-724, in-8, 1 pl.) Sydney 1896.
 - Descriptions of new Australian fungi (Proceed. Linn. Soc. New South Wales 1896, part. 1, pgg. 104-106, in-8), 1 pl.) Sydney 1896.
 - New South Wales Fungi (Proceed. Linn. Soc. of N.-S.-Wales 1897, pgg. 36-43 et 698-703, in-8, 5 pl.) Sydney 1897.
 - Fungus diseases of the Raspberry (Depart. of Agric., Victoria, 1897, 12 pgg., in-8, 2 pl.) Melbourne 1897.
 - Additions to the fungi on the Vine in Australia (Depart. of Agric., Victoria, 1898, 54 pgg., in-8, 10 pl.) Melbourne 1898.
 - A new Myxomycete for New South Wales (Proceed. Linn. Soc. of N.-S.-Wales, 1898, pgg. 82-84, in-8) Sydney 1898.
 - Fungus diseases of *Citrus* trees in Australia (Depart. of Agric., Vi-

- ctoria, 1899, 192 pgg., in-8, 31 pl.) Melbourne 1899.
- Mac Alpine D.** — The systematic position of the Locust-fungus imported from the Cape (Agric. Gazette of N.-S.-Wales, 1900, 3 pgg., in-8, 1 pl.) Sydney 1900.
- Phosphorescent fungi in Australia (Proceed. Linn.-Soc. of N.-S.-Wales, 1900, pgg. 548-558, in-8, 1 pl.) Sydney 1901.
 - On the Australian fairy-ring Puff-ball: *Lycoperdon furfuraceum* (*ibid.*, pgg. 702-707, in-8, 1 pl.) Sydney 1901.
 - The first recorded fungus-parasite on *Epacris*: *Cladosporium Epacridis* n. sp. (The Victorian Naturalist, XVII, pgg. 186-187, in-8) Melbourne 1901.
 - Black spot of the Apple: together with spraying for fungus-diseases (Journ. of Depart. of Agr., Victoria, Bull. n. 3; 29 pgg., in-8, 11 pl.) Melbourne 1902.
 - Fungus diseases of stone-fruit trees in Australia and their treatment (Dep. of Agric., Victoria, 1902, pgg. 1-165, in-8, figg. et pl.) Melbourne 1902.
 - Australian fungi new or unrecorded. Decades I-VI (Proceed. Linn. Soc. of N.-S.-Wales, 1902, pgg. 373-379; 1903, pgg. 94-103 et 553-563, in-8) Sydney 1902-1903.
 - Early blight of the Potato: *Alternaria Solani* (E. et M.) (Journ. of Depart. of Agric., Victoria, 1904, pgg. 464-467, in-8, 2 pl.) Melbourne 1904.
 - Take - all and white - heads in Wheat: *Ophiobolus graminis* (*ibid.*, 20 pgg., in-8, 5 pl.) Melbourne 1904.
 - Australian fungi new or unrecorded. Decades VII-VIII (Proceed. Linn. Soc. of N.-S.-Wales, 1904, pgg. 117-127, in-8) Sydney 1904.
- Mac Alpine D.** — Some misconceptions concerning the uredospores of *Puccinia Pruni* Pers. (Annal. Mycol. II, 5 pgg., in-8) Berlin-Potsdam 1904.
- Two new fungi parasitic on scale insects (Journ. Depart. of Agric., Victoria, Bull. n. 14, 5 pgg., in-8, 2 pl.) Melbourne 1904.
 - Native or blackbellows' bread (Journ. Dep. of Agric. of Victoria, vol. II, pgg. 1012-1020, in-8, 5 pl.) Melbourne 1904.
- Mac Alpine D., Cobb. N. A. et alii** — Report of the proceedings of the rust in Wheat conference. Fourth session (77 pgg., in-8, figg.) Brisbane 1894.
- Mac Alpine D. et Hill W. H. F.** — The entomogenous fungi of Victoria (Proceed. roy. Soc. of Victoria, 1894, pgg. 159-165, in-8) Melbourne 1894.
- Mac Alpine D. et Tepper J. G. O.** — A new Australian stone-making fungus: *Laccocephalum basilapoides* (*ibid.*, pgg. 166-168, in-8, 1 pl.) Melbourne 1894.
- Mac Bride Th. H.** — The Myxomycetes of eastern Iowa (Bull. Labor. Nat. Hist. of State Univ. of Iowa, vol. II, pgg. 99-162 et 384-393, in-8, 10 pl.) Iowa 1892.
- Nicaraguan Myxomycetes (*ibid.*, pgg. 377-383, in-8, 1 pl.) Iowa 1893.
 - A new *Physarum* from Colorado (*ibid.*, 1 pag., in-8) Iowa 1893.
 - Saprophytic fungi of eastern Iowa I (*ibid.*, vol. III, 30 pgg., in-8) Iowa 1895.
 - An interesting Puff-ball (*ibid.*, vol. III; pgg. 216-217, in-8) Iowa 1896.
 - The north-american slime-moulds. New York 1899.
- Mac Bride Th. H. et Allin N.** — The saprophytic fungi of eastern Iowa: the Puff-balls (Bull. Lab. Nat.

- Hist. St. Univers. of Iowa, vol. IV, pgg. 33-66, in-8) Iowa 1896.
- Mac Bride Th. H. et Ellis J. B.** — Cfr. *Ellis*.
- Mac Bride Th. H. et Hitchcock A. S.** — The Peronosporae of Iowa (Bull. Lab. Nat. Hist. St. Univ. of Iowa, vol. I, pgg. 45-52, in-8) Iowa 1883.
- Mac Bride Th. H. et Smith C. L.** — The Nicaraguan Myxomycetes with notes on certain mexican species (cont.) (*ibid.*, vol. IV, pgg. 73-75, in-8) Iowa 1896.
- Macchia C.** — Funghi che producono il Carbone nei Grani (8 pgg., in-8) Chieti 1875.
- Macchiati L.** — Varietà crittogamica (Giornale del Lab. Crittog. ed Entom. della Sardegna, an. I) Sassari 1879.
- Di alcuni funghi parassiti delle piante della Sardegna (*ibid.*) Sassari 1879.
 - Sulla doppia colorazione dei bacilli sporigeni (Malp., V, 3 pgg., in-8) Genova 1892.
 - La bacteriosi dei grappoli della Vite (Le Staz. Sper. Agr. ital., vol. XXII, 15 pgg., in-8, 2 tav.) Modena 1892.
 - Lo *Streptococcus Bombycis* e la fiaccidezza del baco da seta (*ibid.*, vol. XXIII, 11 pgg., in-8) Modena 1892.
 - La bacteriosis des grappes de la Vigne (Rev. internat. de Vitic. et d'Enologie, 1894, 19 pgg., in-8, 2 pl.) Macon 1894.
 - Ricerche sulla biologia del *Bacillus Baccarinii* (Le Staz. Sper. Agr. ital., vol. XXX, pgg. 401-444, in-8, 3 tav.) Modena 1897.
 - Ueber die Biologie des *Bacillus Baccarinii* Macch. (Centralbl. f. Bakter. etc., 1898, pgg. 332-340, in-8) Jena 1898.
 - Sopra uno Streptococco parassita dei granuli d'amido di frumento (Bull. Soc. Bot. ital. 1899, pgg. 48-53, in-8) Firenze 1899.
- Macchiati L.** — Note di biologia sul *Bacterium chlorometamorphicum* sp. nov. (*ibid.*, 1904, pgg. 238-241, in-8) Firenze 1904.
- Mac Weeney E. J.** — Observations on *Phoma Betae*, a fungus that injures Mangel (Journ. of R. Agr. Soc. of England, ser. 3, vol. VI, 6 pgg., in-8, figg.) London 1895.
- Maestri A.** — Osservazioni sui corpuscoli dei bachi da seta (Arch. Lab. Bot. Critt. di Pavia, vol. I, pgg. 159-172, in-8, 2 tav.) Milano 1874.
- Magnaghi A.** — Micologia della Lomellina. — Primo contributo (Atti Ist. Bot. Pavia, vol. VII, 18 pgg., in-8) Milano 1901.
- Contribuzione allo studio della micologia ligustica (*ibid.*, vol. VIII, 13 pgg., in-8) Milano 1902.
- Magnin A.** — Notes sur une nouvelle localité du *Carex brevicollis* et sur l'invasion de *Puccinia Malvacearum* dans le Jura et les environs de Lyon (Ann. Soc. Botan. Lyon, 1874, 9 pgg., in-8) Lyon 1874.
- Sur les Uredinées (Ass. franç. pour l'avancem. des Sciences 1873, 6 pgg., in-8) Lyon 1873.
- Magnus P.** — Kurze Notiz zu *Ascospora pulverulenta* Riess (Botan. Zeitung, XXXIII, pgg. 685-686, in-4) Leipzig 1875.
- Ueber die weitere Verbreitung der *Puccinia Malvacearum* in Europa (Sitzungsb. Gesellsch. naturf. Freunde zu Berlin, 1877, 6 pgg., in-8) Berlin 1877.
 - Ueber die auf den Wolfsmilch-arten auftretenden Rostpilze (*ibid.*, 5 pgg., in-8) Berlin 1877.
 - Ueber die Entwicklung der *Puccinia Oreoselini* Tk. (*ibid.*, 5 pgg., in-8) Berlin 1877.
 - Ueber drei neue Pilze (Sitzungsb.

botan. Ver. Prov. Brandenb., XX,
8 pgg., in-8) Berlin 1878.

Magnus P. — Zur Biologie der Rostpilze (Naturwiss. Rundschau, I, pgg. 321-322, in-8) Braunschweig 1886.

- Einige Beobachtungen über die Heterophyllie von *Melaleuca micromera* (Sitzungsb. Gesellsch. naturf. Freunde zu Berlin, 1887 2 pgg., in-8) Berlin 1887.
- Verzeichnis der am 1 Mai, 5 und 6 Juni 1887 bei Buckow gesammelten Pilze (Verh. Bot. Ver. Prov. Brandenb. XXIX, pgg. XV-XVI, in-8) Berlin 1887.
- Verzeichnis der am 15 und 16 Juni 1889 bei Taugermünde beobachteten Pilze (*ibid.*, XXXI, pgg. XXII-XXVI, in-8) Berlin 1889.
- *Urocystis Kmetiana* n. sp. (*ibid.*, pgg. XIX-XX, in-8) Berlin 1889.
- Zweiter Nachtrag zu dem Verzeichnisse der im botanischen Garten zu Berlin beobachteten Ustilagineen und Uredineen (Abh. bot. Ver. Prov. Brand., XXXII, pgg. 251-254, in-8) Berlin 1890.
- *Urocystis Kmetiana* P. Magn. im Fruchtknoten von *Viola tricolor arvensis* (Verh. bot. Ver. Prov. Brandenb., XXXI, pgg. XXII-XXVI, in-8) Berlin 1889.
- *Corodyceps capitatus* auf *Elaphomyces* (*ibid.*, XXXIII, 1 pg., in-8) Berlin 1891.
- Ueber die europäischen *Gymnosporangium*-Arten (*ibid.*, XXXIV, pgg. XIV-XV, in-8) Berlin 1892.
- Verzeichnis der bei Schwedt a. O. am 11 und 12 Juni 1892 beobachteten Pilze (*ibid.*, pgg. XVII-XVIII, in-8) Berlin 1892.
- Eine neue Blattkrankheit des Goldregens, *Cytisus Laburnus* (Hedw. 1892, p. 149-150, in-8, 1 Taf.) Dresden 1892.

Magnus P. — Ueber einige in Südamerika auf *Berberis*-Arten wachsende Uredineen (*ibid.*, X, pgg. 319-326, in-8, 1 Taf.) Berlin 1892.

- Verbreitung des Gebrauches des Knollenpilzes (*Pachyma* Fr.) bei wilden Wölkerschaften (Verh. Berliner antropol. Gesell. 1892, 4 pgg., in-8) Berlin 1892.
- Ueber den *Protomyces* (?) *filicinus* Niessl (Atti Congr. bot. internaz. Genova 1892, 6 pgg., in-8, 1 tav.) Genova 1892.
- Ueber eine neue *Epichloë* aus dem ostindischen Archipel (*ibid.*, 7 pgg., in-8, 1 tav.) Genova 1892.
- Mykologische Miscellen (Ber. deutsch. bot. Gesell., XI, pgg. 43-53, in-8, 1 Taf.) Berlin 1893.
- Mykologische Ergebnisse eines kurzen Ausfluges bei Meissen (Gesell. Isis in Dresden, Abh. 8, 1893, 2 pgg., in-8) Dresden 1893.
- Ueber die auf Compositen auftretenden Puccinien mit Teleutosporen vom Typus der *Pucc. Hieracii*, etc. (Ber. deutsch. botan. Gesellsch., Bd. XI, pgg. 453-464, in-8, 1 Taf.) Berlin 1893.
- Ueber die Membran der Oosporen von *Cystopus Tragopogonis* Pers. (*ibid.*, pgg. 327-330, in-8, 1 Taf.) Berlin 1893.
- Ueber *Synchytrium papillatum* Farl. (*ibid.*, pgg. 539-542, in-8, 1 Taf.) Berlin 1893.
- Das Auftreten der *Schinzia cypericola* P. Magn. in Bayern und einiges über deren Verbreitung in Europa (Verhandl. naturf. Gesell. zu Nürnberg 1893, 7 pgg., in-8, 1 Taf.) Nürnberg 1893.
- Verzeichnis der bei Burg b. Magdeburg am 19 April und 27-28 Mai 1893 beobachteten Pilze (Verh. Bot. Ver. Pr. Brand. XXXV, p. XXIII-XXV, in-8, 1 Taf.) Berlin 1893.

Magnus P — Die Peronosporéen der Provinz Brandenburg (Abh. Bot. Ver. etc. XXXV, pgg. 55-87, in-8) Berlin 1893.

— Einige Worte zu P. A. Saccardo's Kritik der von O. Kuntze in seiner Revisio generum plantarum vorgenommenen Aenderungen in der Benennung der Pilze [Hedw., 1893, pgg. 64-66, in-8) Dresden 1893.

— Die von J. Peyritsch in Tirol gesammelten und in Herbarium der k. k. Universität zu Innsbruck aufbewahrten Pilze (Bericht. naturw.-mediz. Ver. in Innsbruck, Jahr. XXI, 49 pgg., in-8, 1 Taf.) Innsbruck 1893.

— Ueber den Zusammenhang der Entwicklung einiger Rostpilze mit klimatischen Verhältnissen ihres Standortes (Naturw. Rundschau, Jahr. IX, 2 pgg., in-8, fig.) Braunschweig 1894.

— Wie ist die Pilzgattung *Iæstadia* jetzt zu bezeichnen? (Oesterr. bot. Zeitschr., 1894, 3 pgg., in-8) Wien 1894.

— Ueber *Taphrina Cornu Cervi* Giesenh. (Botan. Notiser 1894, pgg. 29-30, in-8) Lund 1894.

— Die Exoasceen der Provinz Brandenburg (Abh. Bot. Ver. Prov. Brandenb. XXXVI, pgg. 115-124, in-8) Berlin 1894.

— Dritter Nachtrag zu dem Verzeichnisse der im botanischen Garten zu Berlin beobachteten Ustilagineen und Uredineen (*ibid.*, 6 pgg., in-8) Berlin 1894.

— Einige Bemerkungen über die auf *Phalaris arundinacea* auftretenden Puccinien (Hedw. 1894, pgg. 77-83, in-8) Dresden 1894.

— Die systematische Unterscheidung nächst verwandter parasitischer Pilze auf Grund ihres verschiede-

nen biologischen Verhaltens (*ibid.*, pgg. 362-366, in-8) Dresden 1894.

Magnus P. — Weitere Notiz über das Auftreten der *Plasmodiophora Brassicae* Wor. an wilden Cruciferen (Sitzungsb. naturw. Gesell. Isis, 1894, 1 pag., in-8) Dresden 1894.

— Beitrag zur Kenntniss einiger parasitischer Pilze des Mittelmeergebietes (Ber. deutsch. botan. Gesell. XII, pgg. 84-88, in-8, 1 Taf.) Berlin 1894.

— Das Auftreten der *Peronospora parasitica*, beeinflusst von der Beschaffenheit und dem Entwicklungszustande der Wirthspflanze (*ibid.*, pgg. 39-44, in-8, 1 Taf.) Berlin 1894.

— Die Ustilagineen der Provinz Brandenburg (Abh. Bot. Ver. Prov. Brand. XXXVII, pgg. 66-97, in-8, 1 Taf.) Berlin 1895.

— Beitrag I zur Pilzflora von Franken, insbesondere der Umgegend von Nürnberg (Abh. naturf. Gesellsch. Nürnberg, X, pgg. 121-141, in-8) Nürnberg 1895.

— Die Teleutosporen der *Uredo Aspidiotus* Peck (Ber. deutsch. bot. Gesell., Bd. XIII, pgg. 285-288, in-8, 1 Taf.) Berlin 1895.

— Eine Bemerkung zu E. Fischer's erfolgreichen Infectionen einiger *Centaurea*-Arten durch die *Puccinia* auf *Carex montana* (Botanisch. Centralbl., Bd. LXIII, 3 pgg. in-8) Cassel 1895.

— Ueber das Mycel und den Parasitismus einer neuen *Sclerospora*-Art (*ibid.*, Bd. LXIV, 2 pgg., in-8) Cassel 1895.

— Ein Beitrag zur Kenntniss der Pilze des Orients (in J. Bornmüller, Iter Persico-Turcicum) (Verh. k. k. zool.-bot. Gesell. Wien, 1896, 10 pgg., in-8, 1 Taf.) Wien 1896.

Magnus P. — Parallelförmigen unseres

- Uromyces scutellatus* Lév. in weit entfernten Ländern (Ber. deutsch. bot. Gesellsch., Bd. XIV, pgg. 374-377, in-8) Berlin 1896.
- Berichtigung zur *Cintractia Seymouriana* (*ibid.*, 1 pg., in-8) Berlin 1896.
- Ein nordamerikanische Ustilaginee auf *Panicum Crus Galli* (*ibid.*, pgg. 216-221, in-8, 1 Taf.) Berlin 1896.
- Eine schärfere Unterscheidung des *Uredo* zweier Uredineen auf nahe verwandten Wirtspflanzen und eine daraus resultierende Berichtigung (Abh. Bot. Ver. Prov. Brand. XXXVIII, pgg. 11-14, in-8, fig.) Berlin 1896.
- Einige Bemerkungen zu Herrn Prof. Thomas Mittheilung über einige Exobasidien und Exoascen (Forstl.-naturw. Zeitschr. 1897, pgg. 435-438, in-8) München 1897.
- On some Species of the Genus *Urophlyctis* (Ann. of Bot., XI, pgg. 87-93, in-8, 2 pl.) London 1897.
- Ein auf *Berberis* auftretendes *Aecidium* von der Magellanstrasse (Ber. deutsch. bot. Gesell., Bd. XV, pgg. 270-276, in-8, 1 Taf.) Berlin 1897.
- Ueber das Mycelium des *Aecidium Magellanicum* Berk. (*ibid.*, pgg. 148-152, in-8, 1 Taf.) Berlin 1897.
- *Uredo Gabeliana* n. sp. auf *Parietaria* sp. bei Macuto in Venezuela (Flora, B.I. LXXXIV, pgg. 176-177, in-8, fig.) Marburg 1897.
- Berichtigung zu der Entgegnung des Herrn Dr. Fr. Thomas (Forstl.-naturw. Zeitschr., 1898, pgg. 47-48, in-8) München 1898.
- Die Erysipheen Tirols (Ber. naturw.-mediz. Ver. Innsbruck, XXIV, 25 pgg., in-8) Innsbruck 1898.
- Ueber die Gattung *Uropogon* Schr.

(Ber. deutsch. bot. Gesell. XVII, pgg. 112-120, in-8) Berlin 1899.

- Magnus P.** — Ein bei Berlin auf *Caragana arborescens* Lam. epidemisch auftretender Mehlthau (*ibid.*, pgg. 145-151, in-8, 1 Taf.) Berlin 1899.
- Fungi, II, in *J. Bornmüller* Iter Persico-turcicum 1892-93 (Verh. k. k. zool.-bot. Gesell. Wien, 1899, 17 pgg., in-8, 2 Taf.) Wien 1899.
- Studien an der endotropen Mycorrhiza von *Neottia Nidus-avis* L. (Pringsh. Jahrb., Bd. XXXV, 68 pgg., in-8, 3 Taf.) Leipzig 1900.
- Pilzflora von Franken (dritter Beitrag). (Abh. naturh. Gesell. Nürnberg, Bd. XIII, 44 pgg., in-8, 1 Taf.) Nürnberg 1900.
- Ueber eine neue unterirdisch lebende Art der Gattung *Urophlyctis* (Ber. deutsch. bot. Gesell., Bd. XIX, pgg. 145-153, in-8, 1 Taf.) Berlin 1901.
- Ueber einige von J. Bornmüller im Jahre 1900 auf den canarischen Inseln gesammelte Uredineen (*ibid.*, pgg. 292-300, in-8, 2 Taf.) Berlin 1901.
- Mycel und Aufbau des Fruchtkörpers eines neuen *Leptothyrium* (*ibid.*, pgg. 447-449, in-8, 1 Taf.) Berlin 1901.
- Weitere Mittheilung über die auf Farnkräutern auftretenden Uredineen (*ibid.*, pgg. 578-584, in-8, 1 Taf.) Berlin 1901.
- Zur Gattung *Stereostroma* P. Magn. (Hedw. XL, pgg. 27-28, in-8) Dresden 1901.
- Berichtigung (*Cintractia*) (*ibid.*, 1 pag. in-8) Dresden 1901.
- Einige sachliche und literarische Bemerkungen zu H. und P. Sydow Zur Pilzflora Tirols (*ibid.*, pgg. 29-32, in-8) Dresden 1901.
- Zurückweisung der falschen Behau-

- ptungen der Herren H. und P. Sydow (*ibid.*, pgg. 119-124, in-8) Dresden 1901.
- Magnus P.** — Ueber die richtige Benennung der *Hyalopsora Aspidiotus* (Peck) P. Magn. (*ibid.*, Bd. XLI, pgg., 224-225, in-8) Dresden 1902.
- Bemerkungen zu Dietel's Ausführung über die Gattung *Uropyxis* (*ibid.*, pgg. 145-146, in-8) Dresden 1902.
- Unsere Kenntnis unterirdisch lebender streng parasitischer Pilze und die biologische Bedeutung eines solchen unterirdischen Parasitismus (Ber. deutsch. bot. Gesell., 1902, pgg. 147-156, in-8) Berlin 1902.
- *Melampsorella Feurichii*, eine neue Uredinee auf *Asplenium septentrionale* (*ibid.*, pgg. 609-612, in-8, 1 Taf.) Berlin 1902.
- Kurze Bemerkung über Benennung und Verbreitung der *Urophlyctis bohémica* Bubák (Centralbl. f. Bakter. etc., Bd. IX, pgg. 896-897, in-8) Jena 1902.
- Beitrag zur Kenntnis der Verbreitung der *Puccinia singularis* Magn. (Deutsch. botan. Monatschr., 1902) Arnstadt 1902.
- Ein von F. W. Oliver nachgewiesener fossiler parasitischer Pilz (Ber. deutsch. bot. Gesellsch., 1903, pgg. 249-250, in-8) Berlin 1903.
- Kurze Bemerkung zur Biologie des *Chrysanthemum-rostes* (Centralbl. Bakt. etc., Abth. I, vol. X, pgg. 575-577, in-8) Jena 1903.
- Bemerkungen zur Benennung einiger Uredineen in P. und H. Sydow: *Monographia Uredinearum* (Hedw., Bd. XLII, pgg. 305-306, in-8) Dresden 1903.
- Ein neues *Helminthosporium* (*ibid.*, pgg. 222-225, in-8, 1 Taf.) Dresden 1903.
- Magnus P.** — Einige geschuldete mykologische Mitteilungen (*ibid.*, Bd. XLIII, pgg. 16-18, in-8, 1 Taf.) Dresden 1904.
- Einige Fragen betreffend die Nomenclature der Pilze mit mehreren Fruchtformen (Ascherson's Festschr., pgg. 431-438, in-8) Berlin 1904.
- Ein weiterer Beitrag zur Kenntnis der Gattung *Uredinopsis* (Hedw. XLIII, pgg. 119-125, in-8, 2 Taf.) Dresden 1904.
- *Puccinia Rubsaamenii* n. sp., eine einen einjährigen Hexenbesen bildende Art (Ber. deutsch. bot. Gesellsch., Bd. XXII, pgg. 344-347, in-8, 1 Taf.) Berlin 1904.
- Magnus P. et Allescher A.** — Verzeichnis der vom 11 August bis 10 Sept. 1891 bei Bad Kissingen in Bayern gesammelten meist parasitischen Pilze (Bayer. bot. Gesell., 1892, 11 pgg., in-8) München 1892.
- Magnus P. et Ascherson P.** — Die weisse Heidelbeere nicht identisch mit der durch *Sclerotinia baccarum* verursachten Sclerotienkrankheit (Ber. deutsch. bot. Gesell., VII, pgg. 1-14, in-8) Berlin 1889.
- et — Cfr. *Ascherson P.*
- Magnus P., Hennings P. et Bresadola G.** — Cfr. *Hennings*.
- Maire R.** — Note sur le développement saprophytique et sur la structure cytologique des sporidies-levûres chez l'*Ustilago Maydis* (Bull. Soc. Myc. France, t. XIV, 15 pgg., in-8, 1 pl.) Lons-le-Saunier 1898.
- Note sur un parasite de *Lactarius deliciosus*: *Hypomyces* (*Peckiiella*) *Wuilleminianus* n. sp. et sur un *Hypomyces* parasite de *Lactarius torminosus* (Bull. Herb. Boissier, vol. VII, pgg. 137-145, in-8, 1 pl.) Genève 1899.
- Quelques Uredinées et Ustilaginées

- nouvelles ou peu connues (Bull. Soc. Myc. Fr., t. XVII, 10 pgg., in-8) Lons-le-Saunier 1900.
- Maire R.** — L'évolution nucléaire chez les Uredinées et la sexualité (Cpt. rend. Congrès internat. de Bot. a l'Exposit. univers. de 1900 a Paris, 18 pgg., in-8) Lons-le-Saunier 1900.
- Sur un nouveau *Botryosporium*. Note preliminaire (Bull. Soc. Sc. de Nancy, sér. III, t. I, pgg 161-163) Nancy 1900.
 - Sur la cytologie des Hyménomycètes (Cpt. rend. Acad. Sc. Paris 1900, 4 pgg., in-4) Paris 1900.
 - Sur la cytologie des Gastromycètes (*ibid.*, 3 pgg., in-4) Paris 1900.
 - Nouvelles recherches cytologiques sur les Hyménomycètes (*ibid.*, 1901, 3 pgg., in-4) Paris 1901,
 - De l'utilisation des données cytologiques dans la taxonomie des Basidiomycetes (Bull. Soc. Bot. Fr., t. XLVIII, pgg. XIX-XXX, in-8) Paris 1901.
 - Les variations de la baside et la phylogenèse des Antobasidiomycètes (Bull. Soc. Sc. Nancy, 1901) Nancy 1901.
 - Recherches cytologiques et taxonomiques sur les Basidiomycètes (209 pgg., in-8, 8 pl.) Lons-le-Saunier 1902.
 - Recherches cytologiques sur le *Galectinia succosa* (Cmpt. rend. Acad. d. Sc. de Paris, 1903, II, 2 pgg., in-4) Paris 1903.
 - La formation des asques chez les Pézizes et l'évolution nucléaire des Ascomycètes (Cpt. rend. Soc. de Biologie, t. LV, pgg. 1401-1402, in-8) Paris 1903.
 - Remarques sur la cytologie de quelques Ascomycètes (*ibid.*, t. LVI, pgg. 86-87, in-8) Paris 1901.
 - Sur les divisions nucléaires dans l'asque de la Morille et de quelques autres Ascomycètes (*ibid.*, pgg. 822-824, in-8) Paris 1901.
- Maire R. et Dumée P.** — Remarques sur les urédospores de *Puccinia Pruni* Pers. (Bull. Soc. Mycol. Fr., t. XVII, 3 pgg., in-8, figg.) Paris 1901.
- et — Cfr. *Dumée P.*
- Maire R., Dumée P. et Lutz L.** — Prodrôme d'une flore mycologique de la Corse (Bull. Soc. Bot. Fr., t. XLVIII, pgg. CLXXIX-CCXLVII, in-8, 2 pl.) Paris 1903.
- Maire R. et Marguery F.** — Exsiccata Hypodermearum Galliae orientalis, decas II et III (Le Monde des plantes; 16 pgg., in-8, figg.) Le Mans 1897.
- Maire R. et Saccardo P. A.** — Cfr. *Saccardo P. A.*
- Mangin L.** — Recherches anatomiques sur les Péronosporées (Bull. Soc. Hist. Nat. d'Autun, t. VIII, 58 pgg., in-8, 2 pl.) Autun 1895.
- Observations anatomiques sur les mycorrhizes. Comm. preliminaire. (Cpt. rend. Soc. Biologie 1899, 8 pgg., in-8, figg.) Paris 1899.
 - Contribution à l'étude de quelques parasites du Blé (Bull. Acad. de Danemark, 1899, pgg. 213-272, in-8, 3 pl.) Copenhague 1899.
 - La Cryptogamie. Leçon d'ouverture du cours de Cryptogamie au Muséum d'Histoire Naturelle, faite le 28 novembre 1904 (Rev. Scientif., 24 déc. 1904, 36 pgg. in-8, figg.) Paris 1904.
- Mangin L. et Viala P.** — La phthi-riose de la Vigne (Revue de Viti-culture 1903; 112 pgg., in-8, figg., 5 pl.) Paris 1903.
- Marchal E.** — Une Mucorinée nouvelle (Bull. Soc. belge de Microsc., t. XVIII, 11 pgg., in-8, figg.) Bruxelles 1892.
- Sur un nouveau *Rhopalomyces*: *Rh.*

- macrosporus* (Rev. Mycol. 1892, 7 pgg., in-8, 1 pl.) Toulouse 1892.
- Marchal E.** — Sur la production de l'ammoniaque dans le sol par les microbes (Bull. Acad. roy. Belgique, t. XXV, 49 pgg., in-8) Bruxelles 1893.
- De l'action des moisissures sur l'alumine (Bull. Soc. belge de Microsc., 1893, pgg. 65-74, in-8) Bruxelles 1893.
- Sur quelques champignons nouveaux du Congo (*ibid.*, t. XX, pgg. 259-271, in-8, 1 pl.) Bruxelles 1894.
- Contribution à l'étude microbiologique de la maturation des fromages mous (Annal. Soc. Bel. de Microsc. — Mémoires, t. XIX, pgg. 29-56, in-8, 1 pl.) Bruxelles 1895.
- Champignons coprophiles de Belgique, VII. (Bull. Soc. roy. Bot. de Belgique, t. XXXIV, pgg. 125-149, in-8, 2 pl.) Gand 1895.
- Rapport sur les maladies cryptogamiques étudiées au Laboratoire de biologie de l'Institut agricole de l'Etat à Gembloux en 1894 (Bull. de l'Agric. [Ministère de l'Agr. et des Trav. Publ.] 9 pgg., in-8, figg.) Bruxelles 1895.
- *Id.* 1895 (10 pgg., in-8, figg.) Bruxelles 1895.
- *Id.* 1901 (15 pgg., in-8, figg.) Bruxelles 1901.
- Recherches biologiques sur une Chytridiinée parasite du Lin (46 pgg., in-8, 1 pl.) Bruxelles 1901.
- Contributo allo studio della ruggine dei cereali (Atti VII Congr. internaz. di Agricoltura, Roma 1903, sez. VII, pgg. 22-27, in-8) Roma 1903.
- Marchand L.** — Synopsis et tableau synoptique des familles qui composent la classe des Mycophytes (Bull. Soc. Mycol. Fr., t. X, 16 pgg., in-8, 1 pl.) Lons-le-Saunier 1894.
- Marguery F. et Maire R.** — Cfr. *Maire R.*
- Marquand E. D.** — The fungi of Guernsey (Trans. Guernsey Soc. of Nat. Sc. for 1897, 19 pgg., in-8) Guernsey 1897.
- Marshall Ward H.** — Cfr. *Ward.*
- Martin Ch. E.** — Contribution à la flore mycologique Genevoise (Bull. d. travaux Soc. bot. de Genève, VII, pg. 171-188, in-8) Genève 1894.
- Le *Boletus subtomentosus* de la région genevoise (Matér. pour la Fl. cryptog. suisse, vol. II, fasc. I, 39 pgg., in-8, 18 pl.) Bern 1903.
- Martius C. F. Ph. (von)** — Versuche eines Commentars über die Pflanzen in den Werken von *Marcgrav* und *Piso* über Brasilien, etc. — I, Kryptogamen (Abhandl. mathem.-physikal. Cl. Bayer. Akad. Wissensch., VII, pgg. 181-238, in-8) München 1858.
- Massalongo C.** — Sulla germogliazione delle sporule nelle *Sphaeropsidæ* (Bull. Soc. Bot. ital. 1888, pgg. 437-445, in-8, figg.) Firenze 1888.
- Ueber eine neue species von *Taphrina* (Botan. Centralbl., Bd. XXXIV, pgg. 389-390, in-8) Cassel 1888.
- Sulla scoperta della *Taphrina coerulescens* in Italia (Bull. Soc. Bot. ital. 1890, pgg. 274-275, in-8) Firenze 1890.
- Sulla scoperta in Italia della *Taphrina epiphylla* Sadeb. (*ibid.*, 1891, pgg. 525-527, in-8) Firenze 1891.
- Sulla scoperta in Italia della *Calyptospora Gæppertiana* J. Kühn (*ibid.*, 1892, pgg. 236-237, in-8) Firenze 1892.
- Hymenomycetes quos in agro veronensi nuperrime detexit Auctor (Malp., vol. VII, p. 426-453, in-8) Genova 1898.

- Massalongo C.** — Intorno alla *Taphrina Cerasi* (Fr.) Sadeb. (Bull. Soc. Bot. ital. 1893, pgg. 426-427, in-8) Firenze 1893.
- Nuova contribuzione alla micologia veneta veronese (Malp., VII, pgg. 97-190 et 193-226, in-8, 2 tav.) Genova 1894.
 - Sopra due nuovi Pirenomiceti epaticoicoli (Accad. Sc. med. e nat. Ferrara, 1895, 8 pgg., in-8, 1 tav.) Ferrara 1895.
 - Di una nuova specie di *Peronospora* per la flora italica (Bull. Soc. Bot. it. 1896, pgg. 298-299, in-8) Firenze 1896.
 - Sulla scoperta in Italia della *Thecaphora affinis* Schneid. (*ibid.*, pgg. 211-212, in-8) Firenze 1896.
 - Censimento delle piante crittogame dell'agro veronese (23 pgg. in fol.) Verona 1897.
 - Di una nuova forma di *Ramularia* che vive sulle foglie dell'*Helleborus foetidus* (Bull. Soc. Bot. it. 1897, pgg. 29-30, in-8) Firenze 1897.
 - La *Peronospora* della Canapa recentemente scoperta nella provincia di Ferrara (L' Italia agricola, XXXV, pgg. 297-301, in-8, 1 tav.) Piacenza 1898.
 - I funghi della provincia di Ferrara, I (Accad. Sc. med. e nat. in Ferrara, 1899, 36 pgg., in-8, 1 tav.) Ferrara 1899.
 - I funghi mangerecci e velenosi della provincia di Verona (L' Adige, 1899, 16 pgg., in-16) Verona 1899.
 - Sopra una nuova malattia dei frutti del Fagiolo (Bull. Soc. Bot. it. 1899, pgg. 239-240, in-3) Firenze 1899.
 - De nonnullis speciebus novis micromycetum agri veronensis (Atti Ist. Ven., t. LIX, pgg. 683-690, in-8) Venezia 1900.

- Massalongo C.** — Novità della flora micologica veronese (Bull. Soc. Bot. ital. 1900, pgg. 254-259, in-8) Firenze 1900.
- Sopra una nuova malattia delle foglie di *Aucuba japonica* (*ibid.*, pgg. 166-167, in-8) Firenze 1900.
 - Novitates floræ mycologicæ veronensis (Atti Accad. Agr., Sc., Lett. di Verona, ser. IV, vol. III; 87 pgg., in-8, 10 tav.) Verona 1902.
 - Le nostre cognizioni intorno ai funghi della flora veronese (*ibid.*, 24 pgg., in-8) Verona 1902.
 - Note micologiche (Malp., XVII, 7 pgg., in-8) Genova 1903.
 - Di un nuovo micococcidio dell'*Amaranthus silvestris* Desf. (Bull. Soc. Bot. ital. 1904, pgg. 354-356, in-8) Firenze 1904.
- Massee G.** — British fungus - flora (4 voll.) London 1892-1895.
- A parasitic fungus: *Heterosporium asperatum* (The Americ. Microsc. Journ., vol. XIV, pgg. 33-36, in-8, 1 pl.) Washington 1893.
 - The « spot » disease of Orchids (Annals of Botany, IX, pgg. 421-429, in-8, 1 pl.) London 1895.
 - A revision of the genus *Coprinus* (*ibid.*, X, pgg. 123-184, in-8, 2 pl.) London 1896.
 - Redescription of Berkeley's types of fungi (Journ. Linn. Soc. — Bot., vol. XXXI, pgg. 462-525, in-8, 3 pl.) London 1896.
 - New or critical fungi (Journ. of Bot. 1896, 10 pgg., in-8, 1 pl.) London 1896.
 - Root diseases caused by fungi (Bull. miscell. informat. roy. Gardens Kew, n. 109, pgg. 1-5, in-3, 1 pl.) London 1896.
 - Tea blights (*ibid.*, n. 188, pgg. 105-112, in-8, 1 pl.) London 1898.
 - Fungi exotici, I (*ibid.*, pgg. 113-136, in-8) London 1898.

- Massee G.** — List of the more uncommon Fungi and Myxogastres observed in Shervood forest (Trans. british Mycol. Soc., 1896-97, pgg. 13-14, in-8) Worcester 1897.
- British mycology (*ibid.*, pgg. 20-24, in-8) Worcester 1897.
- Revision of Genus *Tilletia* (Bull. miscell. informat. roy. Gard. Kew, n. 153-154, pgg. 141-159, in-8, 1 pl.) London 1899.
- Fungi exotici II. (*ibid.*, pgg. 164-185, in-8) London 1899.
- Coprophilous fungi — Abstract (The Naturalist 1901, pgg. 333-336, in-8) London 1901.
- *Mucor exitiosus* Massee (Bull. Roy. Gard. Kiew, 1901, pgg. 94-99, in-8, 1 pl.) London 1901.
- Massee G. et Crossland Ch.** — New british Discomycetes (The Naturalist 1901, pgg. 177-189, in-8, figg.) London 1901.
- et — New Yorkshire Agarics (*ibid.*, 1902, 2 pgg., in-8) London 1902.
- et — The fungus-flora of Yorkshire I. (Transact. Yorksh. Natural. Union, part 28, Bot. ser., vol. VI, pgg. 5-52, in-8) Leeds 1902.
- Massee G. et Rostrup E.** — Cfr. *Rostrup E.*
- Massee G. et Salmon E. S.** — Researches on coprophilous fungi. I et II (Ann. of Bot., vol. XV, pgg. 313-357, 2 pl., et vol. XVI, pgg. 57-93, 2 pl.) London 1901-1902.
- Massink A.** — Untersuchungen über Krankheiten der Tazetten und Hyacinthen (Arb. pflanzenphysiol. Versuchsstat. Proskau, 1876; 22 pgg., in-8, 2 Taf.) Oppeln 1876.
- Matruchot L.** — Recherches sur le développement de quelques Mucedinées. Paris 1892.
- Revue des travaux sur les Champignons publiés en 1894-97. Laboulbéniaées. (Rev. gén. Botan., t. XI, pgg. 471-484, in-8, figg.) Paris 1899.
- Matruchot L. et Costantin J.** — Cfr. *Costantin J.*
- Matruchot L. et Dassonville Ch.** — Recherches expérimentales sur une dermatomycose des poules et sur son parasite (Rev. gén. Botan., t. XI, pgg. 429-444, in-8, 2 pl.) Paris 1899.
- Mattsi G. E. et Serra A.** — Ricerche storiche e biologiche sulla *Terfezia Leonis* (Bull. Orto Bot. Napoli, II, 12 pgg., in-8) Napoli 1904.
- Mattiolo O.** — Sul valore sistematico del *Choiromyces gangliiformis* Vitt. e del *Ch. meandriiformis* Vitt. (Malpigh., VI, pgg. 380-396 et 467-481, in-8) Genova 1898.
- Che cosa sia il *Choiromyces meandriiformis* (sardous) di Gennari e De Notaris pubblicato nell' Erbario Crittogamico Italiano (Bull. Soc. Bot. it. 1896, pgg. 102-105, in-8) Firenze 1896.
- La *Delastria rosea* Tul. in Italia (*ibid.*, pgg., 177-180, in-8) Firenze 1896.
- Sopra alcune larve miofaghe (*ibid.*, pgg. 180-183, in-8) Firenze 1896.
- Il genere *Cerebella* di V. Cesati. Ricerche intorno al suo sviluppo ed alla sua sistemazione (Mem. Accad. Sc. Ist. Bologna, ser. V, t. VI, 24 pgg., in-8, 1 tav.) Bologna 1897.
- Sulla comparsa in Italia della *Entomophthora lanchoniana* Cornu (Le Staz. sper. agr. ital., 1898, pgg. 315-326, in-8) Modena 1898.
- Sulla mannite contenuta nelle Tuberacee (Malp. XIII, 2 pgg., in-8) Genova 1899.
- Elenco dei *Fungi hypogaei* raccolti nelle foreste di Vallombrosa negli anni 1899-1900 (Malp., XIV, pgg. 247-270, in-8) Genova 1900.
- Gli Ipogei di Sardegna e di Sicilia

- (*ibid.*, pgg. 39-106, in-8, 1 tav.) Genova 1900.
- Mattirolo O.** — I funghi ipogei italiani (Mem. Accad. Scienze Torino, ser. II, t. LIII, pgg. 331-366, in-4, 1 tav.) Torino 1903.
- A proposito di un caso di avvelenamento per Tartufi (Scritti medici in onore di C. Bozzolo; 19 pgg., in-8 gr., figg.) Torino 1904.
- Mattirolo O. et Belli S.** — Note botaniche sul materiale raccolto dalla spedizione polare di S. A. R. Luigi Amedeo di Savoia (1899-1900) (Osservaz. scientif. eseguite durante la spediz. polare di S. A. R., 47 pgg., in-8, fig.) Milano 1903.
- Mattirolo O. et Saccardo P. A.** — Cfr. *Saccardo P. A.*
- Mayr H.** — Ueber den Parasitismus von *Nectria cinnabarina* (16 pgg., in-8, 1 Taf.) s. a. nec loc.
- Megliola G. et Cuboni G.** — Cfr. *Cuboni*.
- Ménier Ch.** — Note sur une nouvelle Psalliote: *Ps. ammophila*, découverte dans la Loire-inférieure (Bull. Sc. Nat Ouest de la Fr., an. III, pgg. 67-69, in-8, 1 pl.) Nantes 1893.
- Ascomycètes hypogés de la Loire-inférieure (*ibid.*, t. V, 12 pgg., in-8, 1 pl.) Nantes 1895.
- Menozi A., Alpe V. et Briosi G.** — Cfr. *Briosi*.
- Meschinelli A.** — Fungorum fossilium omnium hucusque cognitorum iconographia (pgg. I-XX et 1-144, 81 tab.) Vicetiae 1898.
- Su alcuni funghi terziari del Piemonte (Atti Ist. Veneto, ser. VII, t. IX, pgg. 769-775, in-8, 2 tav.) Venezia 1898.
- Metcalf H. et Hedgcock G. G.** — Cfr. *Hedgcock*.
- Mezey G. et Linhart G.** — Cfr. *Linhart*.
- Milesi M. et Traverso G. B.** — Saggio di una monografia del genere *Triphragmium* (Ann. Mycol. II, pgg. 143-156, in-8, 1 tav.) Berlin 1904.
- Miliarakis S.** — *Tylogonus Agavae* (14 pgg., in-8, 1 tab.) Athen 1883.
- Millspaugh Ch. F.** — Contribution II to the coastal and plain flora of Yucatan (Field Columb. Mus., Publ. n. 15, Bot. ser. vol. I, pgg. 281-339 [Fungi pgg. 285-236] 2 pl; in-8) Chicago 1896.
- Millspaugh Ch. F. et Nuttall L. W.** — Cfr. *Nuttall*.
- Minà Palumbo F.** — Crittogame delle Olive (Riv. Pat. veg., IV, pgg. 353-354, in-8) Firenze 1895.
- Miyabe K.** — On the life-history of *Macrosporium parasiticum* Thüm. (Ann. of Bot., III, 26 pgg., in-8, 2 pl.) London 1889.
- Note on *Ustilago esculenta* P. Henn. (Tokyo Botan. Magaz. IX, 3 pgg., in-8) Tokyo 1895.
- Miyoshi M.** — Ueber Chemotropismus der Pilze (Bot. Zeit., 1894, 27 pgg., in-8, 1 Taf.) Leipzig 1894.
- Möller A.** — Die Pilzgärten einiger südamerikanischer Ameisen. (127 pgg., in-8, figg., 7 Taf.) Jena 1893.
- Protobasidiomyceten. Untersuchungen aus Brasilien. (179 pgg., in-8, 6 Taf.) Jena 1895.
- Brasilische Pilzblumen. (152 pgg., in-8, 8 Taf.) Jena 1895.
- Phycomyceten und Ascomyceten. Untersuchungen aus Brasilien. (319 pgg., in-8, figg., 11 Taf.) Jena 1901.
- Ueber gelungene Kulturversuche des Hausschwammes (*Merulius lacrymans*) aus seinen Sporen (Hedw. XLII, pgg. 6-14, in-8, 1 Taf.) Dresden 1903.
- Untersuchungen über ein- und zweijährige Kiefern in märkischen Sandboden (Zeitschr. f. Forst- und Jagdwesen, 1903, pgg. 257-272 et

- 321-338, in-8, figg., 2 Taf.) Berlin 1903.
- Montagne C. — Mémoire sur le genre *Pilobolus* et sur une nouvelle espèce: *P. (Edipus)* (Ann. Soc. Linn. Lyon, 1836, 7 pgg., in-8, 1 pl.) Lyon 1836.
- Fungi cubenses (Ann. Sc. Nat.-Bot., t. XVII, pgg. 119-128, in-8) Paris 1842.
- Montaldini C. — Nuova stazione in Italia della *Thecaphora capsularum* (Bull. Soc. Bot. ital. 1901, pgg. 12-23, in-8) Firenze 1901.
- Montemartini L. — Un nuovo micromicete della Vite: *Aureobasidium Vitis* var. *album* (Atti Ist. Bot. Pavia, V, pgg. 69-73, in-8 gr., 1 tav.) Milano 1897.
- Sopra il parassitismo dell' *Aureobasidium Vitis* (Riv. Patol. veg., VI, pgg. 76-77, in-8) Firenze 1897.
- Ricerche sopra la struttura delle Melanconiacee ed i loro rapporti cogli Ifomiceti e colle Sferossidee (Atti Ist. Bot. Pavia, VI, pgg. 49-93, in-8, 2 tav.) Milano 1899.
- La *Monilia fructigena* Pers. e la malattia dei frutti da essa prodotta (Riv. Pat. veg., VIII, 10 pgg., in-8) Firenze 1900.
- *Uredo aurantiaca* n. sp., nuova Uredinea passita delle Orchidee (Atti Ist. Bot. Pavia, VII, 3 pgg., in-8, 1 tav.) Milano 1900.
- Montemartini L. et Farneti R. — Intorno alla malattia della Vite nel Caucaso: *Physalospora Woroninii* n. sp.) (*ibid.*, VII, 15 pgg., in-8, 1 tav.) Milano 1900.
- Morgan A. P. — North american fungi. V. (Journ. Cincinnati Soc. Nat. Hist., vol. XIV, pgg. 141-148, in-8, 1 pl.) Cincinnati 1892.
- North american *Helicosporæ* (*ibid.*, 1892, pgg. 39-52, in-8, figg.) Cincinnati 1892.
- Description of a new Phalloid: *Phallogaster saccatus* n. sp. (*ibid.*, XV, 2 pgg., in-8, 1 pl.) Cincinnati 1892.
- Morgan A. P. — Two new genera of Hyphomycetes (Bot. Gazette, XVII, pgg. 190-192, in-8, 1 pl.) Cincinnati 1892.
- The Myxomycetes of the Miami Valley, Ohio (Journ. Cincinnati Soc. Nat. Hist., XVI, pgg. 1-42, 2 pl., 43-72, 1 pl.; XIX, pgg. 73-110, 3 pl.; XXII, pgg. 111-130, in-8) Cincinnati 1893-1899.
- New north american fungi (*ibid.*, XVIII, pgg. 36-45, in-8, 9 pl.) Cincinnati 1895.
- Mori A. et Caruel T. — Sulla vaiolatura delle Arancie (N. Giorn. bot. ital., XI, pgg. 214-215, in-8) Pisa 1879.
- Mori A. — Enumerazione dei funghi delle provincie di Modena e Reggio. Cent. III (Bull. Soc. bot. it. 1893, pgg. 62-70 et 129-136, in-8) Firenze 1893.
- Elenco di piante dello Scioa donate dal Dott. V. Ragazzi all'erbario dell'Orto botanico di Modena — e di alcuni micromiceti nuovi (Atti Soc. Naturalisti di Modena, ser. III vol. IX, 2 pgg., in-8) Modena 1891.
- Sulla comparsa della *Septoria curvata* Sacc. sulla Robinia (Le staz. sper. agr. ital. XXXI, pag. 499, in-8) Modena 1898.
- Sulla comparsa della *Septoria Triticis* nelle vicinanze di Faenza (Proc. verb. Soc. tosc. Sc. Nat., 1882, pag. 169, in-8) Pisa 1882.
- Mori A. et Sestini F. Cfr. Sestini.
- Morini F. — Ricerche sopra una specie di *Aspergillus* (Malp. I, pgg. 24-31, in-8, 1 tav.) Messina 1887.
- Sulla presenza di sostanze zuccherine nelle Falloidee nostrane (*ibid.*, pgg. 369-383, in-8) Messina 1887.
- Sulla forma ascofora del *Penicillium*

- candidum* Lk. (*ibid.*, II, pgg. 221-234, in-8) Messina 1883.
- Morini F.** — Note micologiche (*ibid.*, X, pgg. 72-99, in-8, 1 tav.) Genova 1896.
- Monografia del genere *Pilobolus* Tode. Sunto (Rendic. Accad. Sc. Ist. Bologna 1896-97, 3 pgg. in-8) Bologna 1897.
- Morris M. et Henderson G. C.** — The cultivation and life-history of the ringworm fungus: *Tricophyton tonsurans* (Journ. Microscop. Soc., ser. II, vol. III, pgg. 329-337, in-8, 1 pl.) London 1883.
- Mottareale G.** — Contributo alle malattie del Castagno in Calabria. Nota preventiva (Atti Istit. Incoraggiam. di Napoli, vol. X, 3 pgg., in-4) Napoli 1898.
- Di alcuni organi particolari delle radici tubercolifere dell'*Hedysarum coronarium* in relazione al *Bacillus radicicola* ed alla *Phytophthora Leguminosarum* (*ibid.*, XI, 7 pgg., in-4) Napoli 1898.
- La Peronospora della Vite in Calabria (13 pgg. in-8) Portici 1901.
- In merito al parassitismo del vainolo dell'Olivio: *Cycloconium oleaginum* (Annali R. Scuola sup. Agricolt. Portici, 1901, 16 pgg., in-8) Portici 1901.
- L'*Ustilago Reiliana* f. *Zee* e la formazione dei tumori staminali nel Granone (*ibid.*, vol. IV, 17 pgg., in-8, 2 tav.) Portici 1902.
- Relazione sulla malsania dei limoneti di Carini (26 pgg., in-4) Palermo 1902.
- Studio sulla depressa produzione degli Olivi in Ferrandina (Bull. Uff. Ministero Agric. Ind. e Comm., 1903, I; 28 pgg., in-8) Roma 1903.
- Mottareale G. et Berlese Ant.** — Le condizioni di alcune coltivazioni arboree nel territorio di Corigliano Calabro (*ibid.*, 1902, 7 pgg., in-8) Roma 1902.
- Mougeot A.** — Champignons des Vosges (Statist. du Départ. des Vosges, 127 pgg., in-8) Epinal 1845.
- Mougeot A. et Forquignon L.** — Cfr. *Forquignon*.
- Mouton V.** — Ascomycètes observés aux environs de Liège (Bull. Soc. roy. Bot. de Belgique, t. XXV, 26 pgg., in-8, 1 pl. et t. XXVI, 18 pgg., in-8, 1 pl.) Bruxelles 1886-1887.
- Notices sur quelques Ascomycètes nouveaux ou peu connus (*ibid.*, XXVIII, pgg. 78-83; XXXVI, pgg. 10-21, 1 pl.; XXXIX pgg. 37-57, 1 pl.) Bruxelles 1889-1900.
- Müller-Thurgau H.** — Der rote Brenner des Weinstockes (38 pgg., in-8, 5 Taf.) Jena 1903.
- Murrill W. A.** — The Polyporaceæ of North America (Bull. Torr. Bot. Club, vol. XXIX-XXXI) New York 1902-1904.
- A historical review of the genera of the Polyporaceæ (Journ. of Mycol., IX, pgg. 87-102, in-8) Columbus 1903.
- Nardo G. D.** — Quali sieno i fatti principali che condurrebbero a supporre essere una Mucedinea venefica la causa del cholera asiatico (59 pgg., in-8) Venezia 1865.
- Nawaschin S.** — Ueber eine neu *Sclerotinia*, verglichen mit *Scl. Rhododendri* Fisch. (Ber. deutsch. bot. Gesell. XII, pgg. 117-119, in-8) Berlin 1894.
- Nawaschin S. et Woronin M.** — Cfr. *Woronin M.*
- Nees ab Esenbeck Th. F. L. et Blume C. L.** — Fungi javanici (Acad. Caesar.-Leop. — Nova Acta, III, pgg. 11-22, in-4, 6 tab.) Erlangen? 1826.
- Neger F. et Dietel P.** — Cfr. *Dietel*.

- Neger F. et Johow Fr. — Cfr. *Johow*.
 Nemec B. — Ueber die Mykorrhiza bei
Calypogeia trichomanis (Beih. Botan. Centralbl., XVI, pgg. 253-268, in-8, 1 Taf.) Cassel 1904.
- Neppi C. — O. Kirchner: Le malattie delle piante coltivate (pgg. I-VIII et 1-873, in-8, figg.) Torino 1901.
- Niel E. — Note sur le *Clitocybe cryptarum* Letell.) (Bull. Soc. Amis Sc. Nat. Rouen, 1896, 4 pgg. in-8, 1 pl.) Rouen 1896.
- Niel E. et Le Breton A. — Champignons nouveaux ou peu connus récoltés en Normandie (*ibid.*, 1894, pgg. 129-170, in-8, 1 pl.) Rouen 1894.
- Noack Fr. — Pilzkrankheiten der Orangebäume in Brasilien (Zeitschr. f. Pflanzenkr. X, 15 pgg., in-8, 1 Taf.) Stuttgart 1900.
- Noelli A. — Sull'*Acididium Isatidis* Re 1821 (Malp. XV, pgg. 71-74, in-8) Genova 1901.
- *Acididium Biscutellae* n. sp. (*ibid.*, XVI, 2 pgg., in-8) Genova 1902.
- Revisione delle forme del genere *Steganosporium* Oda. (*ibid.*, XVII, 7 pgg., in-8, figg.) Genova 1903.
- Nomura H. — Intorno alla ruggine del Rengesò (*Astragalus sinicus* L.) e a due nuovi micromiceti patogeni del Gelso (Atti Istituto Botan. Pavia, IX, 2 pgg. in-8) Milano 1904.
- Sopra i germi patogeni nella fiaccidezza del baco da seta (Archiv. Farmacol. sper., III, 11 pgg., in-8) Roma 1904.
- Norton J. B. S. — A study of the Kansas Ustilagineae, especially with regard to their germination (Trans. Acad. Sc. St. Louis, vol. VII, pgg. 229-241, in-8, 5 pl.) St. Louis 1896.
- Report of the State pathologist-and-some diseases of the Chestnut (Maryland State Horticult. Soc. 1901, pgg. 27-32 et 104-105, in-8) Baltimore 1901.
- Norton J. B. S. — *Sclerotinia fructigena* (Trans. Acad. Sc. St. Louis, vol. XII, pgg. 91-97, in-8, 4 pl.) St. Louis 1902.
- Notaris G. (de) — Cfr. *De Notaris*.
- Nuttall L. W. et Millspaugh Ch. F. — Flora of West Virginia (Field Columb. Mus.; Public. 9, Bot. ser. vol. I, pgg. 69-276, in-8, 3 pl.) Chicago 1896.
- Nylander W. — Analyses mycologicae (Bidr. Finlands Naturkänn., III, pgg. 121-126, in-8) Helsingfors 1859.
- Oersted A. S. — Bidrag till Svampenes Udviklingshistorie (Naturhist. Foren. Vidensk. Meddelelser 1865, pgg. 21-33, in-8, 2 Taf.) Kopenhagen 1865.
- Oliva L. et Cattaneo A. — Cfr. *Cattaneo A.*
- Oliveira Duarte (de) — Cfr. *Duarte de Oliveira*.
- Oliver F. W. — Notes on fossil fungi (The New Phytologist II, pgg. 49-53, in-8, 1 pl.) London 1903.
- Olivier E. — Un champignon nouveau pour la France: *Battarreia phalloides* Pers. (Le Monde des plantes, II, pgg. 73-74, in-8, 1 pl.) Le Mans 1898.
- Omeliński W. — Wird schweflige und phosphorige Säure durch Nitrobacter oxydiert? (Centralbl. Bakter. etc., 1902, pgg. 68-65, in-8) Jena 1902.
- Orton W. A. — The wilt disease of Cotton and its control (U. St. Dep. of Agric. — Divis. of veg. Physiol. a. Pathol. Bull. n. 27, 16 pgg., in-8, 4 pl.) Washington 1900.
- Ottaviani V. — Sui funghi prataioli e sui molti casi di avvelenamento che vengono loro imputati nella

- città e campagna di Roma (Annali med.-chir. Dott. Metaxà, I, pgg. 17-22 et 72-78, in-8) Roma 1839
- Otto G. — Sechster Nachtrag zu dem in n. 15-23 der Mittheilungen enthaltenen Verzeichnisse schweizerischer Pilze (Mitth. naturf. Gesell. Bern, 1868, pgg. 37-70, in-8) Bern 1869.
- Siebenter Nachtrag zu dem Mittheilungen vom Jahr 1844 enthaltenen Verzeichnisse schweizerischer Pilze, und Fortsetzung der Nachträge vom Jahr 1846-50-57-63-65-68 (*ibid.* 1870, pgg. 88-115, in-8) Bern 1870.
- Oudemans C. A. J. A. — Notiz über *Lamprodesma c. lumbinum* in Rabenh. *Fungi europæi* (Hedw. 1883, 1 pag., in-8) Dresden 1883.
- Notiz über *Ustilago Panici-miliacei* in Winter's *Kryptog.-Flora* (*ibid.*, 1 pag., in-8) Dresden 1883.
- *Sporendonema terrestre* Oud. (Versl. en Meded. Afd. Nat., 3 ser., vol II, pgg. 115-122, in-8, 1 Taf.) Amsterdam 1885.
- *Symbolæ ad Mycologiam fennicam*, XXIX (Meddel. af Soc. Fauna et Flora fennica, 1889, pgg. 84-106, in-8) Helsingfors 1889.
- *Phacidium pusillum* Lib. (Hedw. 1891, 2 pgg., in-8) Dresden 1891.
- *Marasmius corticis* (*ibid.*, 1892, pgg. 183-184) Dresden 1892.
- *Marasmius archyropus* (Pers.) Fr. (*ibid.*, 1892, 1 pag., in-8) Dresden 1892.
- Contributions à la flore mycologique des Pays Bas, XIV-XX (Nederl. Kruidk. Archief, ser. II, vol. VI — ser. III, vol. II) Nijmegen 1892-1904.
- Revision des Champignons trouvés jusqu'à ce jour dans le Pays-Bas. I (688 pgg.) et II (491 pgg. et 13 tab.) Amsterdam 1892 et 1897.
- Over twee nog onbekende fungi: *Septoria Dictyotæ* en *Ustilago Vuyckii* (Verslagen d. Afdel. Naturk. k. Akad. v. Wetensch., 1891-95, pgg. 51-57, in-8) Amsterdam 1891.
- Oudemans C. A. J. A. — *Fungorum species aliquot novæ in Nederlandia detectæ* (Hedw. XXXIII, pgg. 17-21, in-8) Dresden 1891.
- Notice sur quelques champignons nouveaux (K. Akad. v. Wetensch. Amsterdam, 1896, pgg. 224-233, in-8, figg.) Amsterdam 1896.
- Sur une maladie du Perce-neige: *Galanthus nivalis* -et- sur une maladie des Pivoines: *Pæonia* (*ibid.*, 1897, pgg. 455-464, in-8, figg.) Amsterdam 1897.
- Observations mycologiques (*ibid.*, 1897, pgg. 86-92, in-8, figg.) Amsterdam 1897.
- Beiträge zur Pilzflora der Niederlande. Neue Pilze (Hedw. XXXVII, pgg. 175-188 et 313-320, in-8) Dresden 1898.
- Contributions to the knowledge of some undescribed or imperfectly known fungi, I-IV (K. Akad. Wetensch. Amsterdam — Proceed., vol. III, pgg. 140-156, 230-244, 332-347, 386-399, in-8, figg.) Amsterdam 1900.
- Rectifications systématiques, rédigées en ordre alphabétique (Rev. Mycol. 1902, 18 pgg., in-8) Toulouse 1902.
- Beiträge zur Pilzflora der Niederlande (Beih. Botan. Centralbl. 1902, 19 pgg., in-8) Cassel 1902.
- *Exosporina Laricis* Oud., a new microscopic fungus occurring on the Larch and very injurious to this tree (K. Akad. v. Wetensch. Amsterdam, Proceed. 1904, 4 pgg., in-8 gr., 1 pl.) Amsterdam 1904.
- On *Leptostroma austriacum* Oud., a hitherto unknown Leptostromaceae living on the needles of *Pinus austriaca*, and on *Hymenopsis Ty-*

- phae* (Fk.) Sacc., a hitherto insufficiently described Tuberculariaceae occurring on the withered leaf-sheaths of *Typha latifolia*. — On *Sclerotopsis pityophila* (Cda.) Oud. (Proceed. Meeting of Saturday — K. Akad. v. Wetensch. Amsterdam 1904, pgg. 206-213, in-8, 3 pl.) Amsterdam 1904.
- Oudemans C. A. J. A. — *Puccinia Veratri* (Ann. Myc. vol. II, pag. 358) Berlin 1904.
- Oudemans C. A. J. A. et Koning C. J. — Prodrome d'une flore mycologique obtenue par la culture sur gélatine préparée de la terre humeuse du Spanderswoud près de Bussum (Archiv. Néerl. Sc. exact. et natur., 1902; 33 pgg., in-8, cum tab.) s. l., 1902.
- et — On a *Sclerotinia* hitherto unknown and injurious to the cultivation of Tobacco: *Scl. Nicotiane* n. sp. (Proceed. roy. Acad. Amsterd., 1903, pgg. 48-58 et 85-86, in-4, 2 pl.) Amsterdam 1903.
- Pacini F. — Sopra una muffa parasita (*Mucedo*) sviluppatasi nel condotto auditivo esterno (Gazz. medica ital. - Toscana - ser. II, t. I, 11 pgg., in-8, fig.) Firenze 1851.
- Pacinotti G. — Sulle progressioni locali del « fungo raggiato » *Actinomyces Bovis* (Bull. Sc. mediche Bologna, ser. VII, vol. XI, 17 pgg., in-8, 1 tav.) Bologna 1900.
- Pammel L. H. — Iowa Agricultural College Experiment-Station Ames, Iowa - Bull. n. 15-20. Iowa 1891-1893.
- Pampaloni L. — I resti organici nel disodile di Melilli in Sicilia (Palæontographia ital., vol. VIII, pgg. 121-130, in-4, 2 tav.) Pisa 1902.
- Microflora e microfauna nel disodile di Melilli in Sicilia (Rendic. Accad. Lincei, Cl. Sc., ser. V, vol. XI, pgg. 248-253, in-8) Roma 1902.
- Panizzi F. — Degli Imenomiceti che crescono nel circondario di S. Remo (Comm. Soc. Crittog. Ital., I, pgg. 166-175, in-8) Genova 1862.
- Nuova specie di *Polyporus* scoperta e descritta (N. Giorn. bot. ital., XVIII, pgg. 65-66, in-8) Firenze 1886.
- Pantanelli E. — Su le regolazioni del turgore nelle cellule delle volgari muffe (N. Giorn. bot. it., n. s., vol. XI, 23 pgg., in-8) Firenze 1904.
- Paoli G. — Note critiche su alcuni Isteriacei (Nuov. Giorn. Bot. ital., n. ser., vol. XII, pgg. 91-115, in-8, figg.) Firenze 1905.
- Paolucci L. I funghi mangerecci della regione marchigiana col raffronto delle specie velenose affini (Pubbl. Consorzio agr. prov. d'Ancona; 22 pgg., in-8, 6 tav.) Ancona 1901.
- Paratore E. — Sul polimorfismo del *Bacillus radicola* Bey. (Malp. XV, pgg. 175-177, in-8) Genova 1901.
- Pari A. G. — Le Crittogame, loro azioni fisiologiche, loro tipi, ecc. (200 pgg., in-8) Udine 1869.
- Pasquale F. — Primo contributo alla flora di Reggio Calabria (Bull. Soc. bot. it. 1897, pgg. 214-224, in-8) Firenze 1897.
- Passerini G. — Sulla *Puccinia Lojkajana* Thüm. (N. Giorn. Bot. it. XIII, pgg. 127-130, in-8) Firenze 1881.
- Riproduzione della *Gibellina cerealis* (Boll. Comiz. Agr. parmense, 1890, 2 pgg., in-8) Parma 1890.
- Patouillard N. — Notes mycologiques (Rev. Mycol. 1885, pgg. 151-153, in-8) Toulouse 1885.
- Fragments mycologiques I-X (Jour. de Botan., 1889, pgg. 1-40, 2 pl.; 1890, pgg. 65-70, figg., in-8) Paris 1889-1890.

- Patouillard N. — Fungi, in *Iyebowski J.*
«L'extrême sud algérien» (Archives
des Missions scientif. et littér., t. I,
pgg. 53-54, in-8, 1 pl.) Paris 1892.
- Quelques champignons asiatiques nou-
veaux ou peu connus (Bull. Herb.
Boiss., I, pgg. 300-303, in-8) Genève
1893.
- Enumeration des champignons re-
coltés par le R. R. P. P. Farges
et Soulié dans le Thibet oriental
et le Su-Tchuen (Bull. Soc. Myc.
Fr., XI, 6 pgg., in-8, 1 pl.) Lons-
le-Saunier 1895.
- *Cyclostomella*, nouveau genre d'Hé-
mihystériés (Bull. Herb. Boiss., IV,
pgg. 655-656, in-8) Genève 1896.
- Note sur un cone de Pin déformé
par une Urédinée (Journ. de Bot.
1896, 3 pgg., in-8, 1 pl.) Paris 1896.
- Catalogue raisonné de plantes cel-
lulaires de la Tunisie. Paris 1897.
- Énumération des champignons ré-
coltés à Java par M. J. Massart
(Ann. Jard. Bot. Buitenzorg, I
Suppl., pgg. 107-127, in-8, 2 pl.)
Leide 1897.
- Quelques champignons de Java (Bull.
Soc. Mycol. Fr., XIV, 19 pgg., in-
8) Lons-le-Saunier 1898.
- Essai taxonomique sur les familles
et les genres des Hyménomycètes.
(1 vol. in-8, Lons-le-Saunier 1900.
- Quelques champignons des colonies
françaises, 1^{re} sér. (L'Agric. prat.
des pays chauds, I, pgg. 262-265,
in-8 2 pl.) Paris 1901.
- Champignons Algéro-Tunisiers nou-
veaux ou peu connus (Bull. Soc.
Myc. Fr., XVIII, 7 pgg., in-8, fig.)
Paris 1902.
- Champignons de la Guadeloupe, re-
cueillis par le R. P. Duss (*ibid.*,
16 pgg., in-8, figg.) Paris 1902.
- Description de quelques champignons
extra-européens (*ibid.*, 6 pgg., in-8,
1 pl.) Paris 1902.
- Patouillard N. — Note sur trois cham-
pignons des Antilles (Ann. Mycol.
I, 4 pgg., in-8) Berlin 1903.
- Champignons Algéro-Tunisiers nou-
veaux ou peu connus (Bull. Soc.
Myc. Fr., XX, 4 pgg., in-8, 1 pl.)
Paris 1904
- Description de quelques champi-
gnons nouveaux des îles Gambier
(*ibid.*, 4 pgg., in-8, figg.) Paris
1904.
- Contribution à l'histoire naturelle
de la Tunisie. Notes mycologiques
(Bull. Soc. Hist. Nat. Autun, t.
XVII, 15 pgg., in-8, 5 pl.) Autun
1904.
- Patouillard A. et Boudier E. — Cfr.
Boudier.
- Patouillard N. et Fischer Ed. — Cfr.
Fischer Ed.
- Patouillard N. et Hariot P. — Liste
des champignons récoltés en Basse-
Californie par M. Diguët (Journ.
de Bot. 1896, 3 pgg., in-8, 1 pl.)
Paris 1896.
- et — Liste des champignons récol-
tés au Japon par M. le Dr. Har-
mand (Bull. Museum Hist. Nat.
Paris, 1902, pgg. 129-132, in-8)
Paris 1902.
- et — Description de champignons
nouveaux de l'herbier du Museum
(Bull. Soc. Myc. Fr., XX, 5 pgg.,
in-8, fig.) Paris 1903.
- Patouillard N. et Lagerhelm G. —
Champignons de l'Équateur, pu-
gillus IV (Bull. Herb. Boiss., III,
pgg. 53-74, in-8, 1 pl.) Genève
1895.
- et — Cfr. *Lagerhelm*.
- Patterson F. W. — A study of north
american parasitic *Ex asceæ* (Bull.
Lab. Nat. Hist. St. Univ. Iowa,
vol. III, pgg. 89-135, in-8, 4 pl.)
Iowa 1895.
- A collection of economic and other
fungi prepared for distribution (U.

- St. Dep of Agric., Bur. of Plant-Ind., Bull. n. 8, 31 pgg, in-8) Washington 1902.
- Pavillard J. et Lagarde J. — Cfr. *Lagarde*.
- Peck Ch. H. — Annual report on the New York State Museum of Natural History. Report of the Botanist, n. 45-51. Albany 1893-1900.
- Two new fungi (Bull. Torr. Bot. Club, VI, pag. 77, in-8) New York 1876.
 - United States species of *Lycoperdon* (Mem. Albany Inst.; 34 pgg, in-8) Albany 1879.
 - New species of fungi (Bull. Torr. Bot. Club, vol XXII-XXXI) New York 1895-1904.
 - Edible fungi of New York (Mem. New York State Museum, n. 4, vol. 8) Albany 1900.
 - Report of the State Botanist 1902 (New York State Museum, Bull. 67; 194 pgg., in-8, 5 pl.) Albany 1903.
 - Report of the State Botanist 1903 (New York State Museum, Bull. 75; 68 pgg., in-8, 4 pl.) Albany 1904.
- Peglion V. — La ruggine dell' Endivia: *l'uccinia Prenanthis* (Riv. Patol. veg. I, pgg. 299-300, in-8) Padova 1892.
- La ticchiolatura del Pero (*ibid.*, pgg. 168-189, in-8, 1 tav.) Padova 1892.
 - Una nuova malattia del melone cagionata dall' *Alternaria Brassicae* for. *nigrescens* (*ibid.*, pgg. 296-298, in-8) Padova 1892.
 - Studio anatomico di alonnie ipertrofie indotte dal *Cystopus candidus* in alcuni organi del *Raphanus Raphanistrum* (*ibid.*, pgg. 265-284, in-8) Padova 1892.
 - Ricerche anatomiche sopra i tumori delle foglie e rami di Pero causati dal parassitismo della *Rozestellia cancellata* (*ibid.*, II, pgg. 23-37, in-8) Avellino 1893.
- Peglion V. — Sulla *Cercospora cladosporioides* (*ibid.*, pgg. 110-111, in-8) Avellino 1893.
- Sopra due parassiti del Melone (*ibid.* pgg. 227-240, in-8) Avellino 1893.
 - Sulla struttura e sullo sviluppo di due Melanconiacei parassiti imperfettamente conosciuti (*ibid.*, 15 pgg. in-8, 1 tav.) Avellino 1894.
 - Diagnosi di funghi parassiti nuovi (*ibid.*, 16 pgg., in-8, 1 tav.) Avellino 1894.
 - Contribuzione allo studio morfologico dei fermenti del vino della Valpantena (Le Staz. sper. agr. ital., XXVIII, pgg. 369-382, in-8) Modena 1895.
 - Contribuzione alla conoscenza della flora micologica avellinese (Malp., VIII, pgg. 424-460, in-8) Genova 1895.
 - Etudes sur la pourriture des raisins causée par le *Botrytis cinerea* (Rev. internat. Viticult. et Oenol., 1895, 20 pgg., in-8) Macon 1895.
 - La Peronospora del Frumento: *Sclerospora graminicola* (Sacc.) Schröt. (Boll. Notizie Agr., 1900, n. 20, 7 pgg., in-8) Roma 1900.
 - Sulla cosiddetta « Golpe bianca » del Frumento. Nota preliminare (*ibid.* 7 pgg., in-8) Roma 1900.
 - Ueber die *Nematospora Coryli* Pegl. (Centralbl. Bakt. etc., Bd. VII, 8 pgg., in-8, 1 Taf.) Jena 1901.
 - Sopra il parassitismo dei *Botryosporium* (Le Staz. sper. agr. it. XXXIII, 7 pgg., in-8) Modena 1900.
 - Sulla probabile origine del sapore terroso dei vini (*ibid.*, 9 pgg, in-8) Modena 1900.
 - La Peronospora del Frumento. Nuove ricerche (*ibid.*, XXXIV; 31 pgg., in-8, 3 tav.) Modena 1901.

Peglion V. — La Fillossera e le principali malattie crittogamiche della Vite (302 pgg., in-8, figg.) Milano 1902.

— La Peronospora del Frumento nel Ferrarese (Rend. Accad. Lincei, cl. sc., ser. V, vol. XI, pgg. 389-392, in-8) Roma 1902.

— Gli scopazzi o *hexenbesen* di *Juniperus macrocarpa* cagionati dal *Gymnosporangium clavariæforme* — e — Malattia del *Cyclamen* cagionata da *Heterodera radiculicola* (Atti Accad. Georgof., XXV, 10 pgg., in-8) Firenze 1902.

— Il mal del piede delle Bietole (L' Italia agric., XL, 7 pgg., in-8, 1 tav.) Piacenza 1903.

— Di una speciale infezione crittogamica dei semi di Erba medica e di Trifoglio (Le Staz. sper. agr. ital., XXXVI, 9 pgg., in-8) Modena 1903.

— Intorno al mal dello sclerozio della Bietola (Accad. Sc. med. e nat. Ferrara, 1904, 4 pgg., in-8, 1 tav.) Ferrara 1905.

— Sulla presenza in Italia del *Cystopus Lepigoni* (*ibid.*, 1904, 3 pgg., in-8) Ferrara 1905.

— Intorno alla nebbia o mal bianco dell' *Eronymus japonica* (Rendic. Accad. Lincei, cl. sc., ser. V, vol. XIV, pgg. 232-234, in-8) Roma 1905.

Peglion V. et Berlese A. N. — Cfr. *Berlese A. N.*

Pelagatti M. — Ueber die Morphologie der Tricophytonpilze (Monatsh. f. parasit. Dermatologie, XXIX, pgg. 453-470, in-8, 3 Taf.) Leipzig 1899.

Pellegrini P. — Funghi della provincia di Massa Carrara (N. Giorn. Bot. it., n. s., VI, pgg. 51-80 et 183-218, in-8) Firenze 1899.

Penzig O. — *Beltramia*, un nuovo genere d' Ifomiceti (N. Giorn. Bot. it.,

XIV, pgg. 72-74, in-8, 1 tav.) Firenze 1882.

Penzig O. — *Amallospora*, nuovo genere di Tuberculariee (Malp. XI, pgg. 461-464, in-8, 1 tav.) Genova 1898.

— Die Myxomyceten der Flora von Buitenzorg (83 pgg., in-8) Leiden 1898.

— Ueber javanische Phalloideen (Annal. Jard. Bot. Buitenzorg, 2 ser., vol. I, pgg. 133-173, in-8, 10 pl.) Leiden 1899.

— Note sul genere *Mycosyrinx* (Malp. XIII, 13 pgg., in-8, 2 tav.) Genova 1899.

Penzig O. et Poggi T. — La malattia dei Gelsi nella primavera del 1884 (Boll. mensile Bachicoltura 1884, pgg. 56-64, in-8) Padova 1884.

Penzig O. et Saccardo P. A. — Cfr. *Saccardo P. A.*

Pereira Coutinho M. (de França) — Una especie nova da flora mycologica portugueza (Revista Agronom. I, pgg., 120-121, in-8) Lisboa 1903.

— Subsidio para o estudo da flora mycologica portugueza (*ibid.*, pgg. 193-194, in-8) Lisboa 1903.

Persoon C. H. — Observationes mycologicae I (Usteri Nene Ann. d. Bot., XIV, pag. 115 et seq., cum tab.) Lipsiae 1796.

— Nova Lichenum species (Annal. Wetteran. Gesell. f. d. gesammte Naturk., Bd. II, pgg. 9-20, in-4) Frankfurt a. M. 1810.

— Traité sur les champignons comestibles. Paris 1818.

Pestana J. (da Camara). — Cfr. *Da Camara*.

Petri L. — Descrizione di alcuni Gasteromiceti di Borneo (Malp. XIV, 31 pgg. in-8, 3 tav.) Genova 1900.

— La formazione delle spore nell' *Hydnangium carneum* Wallr. (Nuov.

- Giorn. Bot. ital., n. ser., vol. IX, 16 pgg., in-8, 1 tav.) Firenze 1902.
- Petri L. — Lo sviluppo del corpo fruttifero dell' *Hydnangium carneum* Wallr. (Rend. Congr. Bot. Palermo 1902, 4 pgg., in-8) Palermo 1902.
- Di una forma anomala di *Peziza vesiculosa* Bull. (N. Giorn. Bot. it., n. ser., vol. X, 2 pgg., in-8) Firenze 1903.
- La formazione delle spore in *Naucoria nana* n. sp. (*ibid.*, X, 15 pgg., in-8, 1 tav.) Firenze 1903.
- Di un nuovo bacillo capsulato e del significato biologico delle capsule (*ibid.*, 24 pgg., in-8, 1 tav.) Firenze 1903.
- Ricerche sul significato morfologico dei *prosporoidi* (sporangioli di Jansen) nelle micorize endotrofiche (*ibid.*, 22 pgg., in-8, fig.) Firenze 1903.
- Di una nuova specie di *Thielaviopsis* Went. (*ibid.*, 3 pgg., in-8, fig.) Firenze 1903.
- Ricerche sul genere *Streptothrix* (*ibid.*, 17 pgg., in-8, figg.) Firenze 1903.
- Osservazioni sul genere *Tylostoma* Pers. (*ibid.*, XI, 19 pgg., in-8, figg.) Firenze 1904.
- *Naucoria nana* n. sp. (Annales mycol. II, pgg. 9-11, in-8, fig.) Berlin 1904.
- Sul valore diagnostico del capillizio nel genere *Tylostoma* Pers. (Annal. Myc. II, pgg. 412-438, in-8, 1 tav.) Berlin 1904.
- Di una forma speciale della « malattia degli sclerozii » nei Fagioli (Rendic. Accad. Lincei, Cl. Sc., ser. V, vol. XIII, pgg. 479-482, in-4) Roma 1904.
- Sopra la particolare localizzazione di una colonia batterica nel tubo digerente della larva della mosca olearia (*ibid.*, 1 pag., in-4) Roma 1904.
- Pettit R. H. — Studies in artificial cultures of entomogenous fungi (Cornell Univ. Agric. Exp. Stat. - Bot. a. Entom. Divis., Bull. 97, pgg. 339-378, in-8, 11 pl.) Ithaca 1895.
- Philippi F. — Die Pilze Chiles, soweit dieselben als Nahrungsmittel gebraucht werden (Hedw. 1893, pgg. 115-118, in-8) Dresden 1893.
- Phillips W. — *Gyromitra gigas* (Krombh.) Cooke (Journ. of Bot., XXXI, pgg. 129-132, in-8, 1 pl.) London 1893.
- Phoebus P. — Ueber den Keimkörnerapparat der Agaricineen und Helvellaceen (Acad. Caes.-Leop. — Nova Acta, XIX, pgg. 171-248, in-8, 2 Taf.) Erlangen? 1842.
- Piccona A. — Appunti sulla distribuzione geografica del *Polyporus Inzengae* (N. Giorn. Bot. ital. VIII, pgg. 367-368, in-8) Pisa 1876.
- Sulla malattia del « falchetto » nei Gelsi (*ibid.*, XI, pgg. 192-196, in-8) Pisa 1879.
- Pichi P. — Sulla fermentazione del mosto di uva con fermenti selezionati (Annali Scuola Viticolt. ed Enol. Conegliano, ser. III, an. I; 11 pgg., in-8) Conegliano 1892.
- Ricerche morfologiche e fisiologiche sopra due nuove specie di *Saccharomyces* prossime al *S. membranaceus* di Hansen (*ibid.*, 39 pgg., in-8, 4 tav.) Conegliano 1892.
- Pichi P. et Marescalchi A. — Sulla fermentazione del mosto d' uva con fermenti selezionati (*ibid.*, ser. III, an. I et II; 26 pgg., in-8) Conegliano 1892-1893.
- Pickering R. — Concerning the seeds of Mushrooms (Philosoph. Transact., vol. VIII, pgg. 718-720, in-8, 1 pl.) London 1743.
- Picus V. — Ex physica de Fungorum

- generatione (283 pgg., in-8, 2 tab.) Augustae Taurinorum 1783.
- Pierce N. B. — Grape diseases on the Pacific coast (U. St. Dep. of Agr. — Farmers' Bull. n. 80; 15 pgg., in-8, figg.) Washington 1895.
- Peach-leaf-curl; its nature and treatment (1 vol. in-8) Washington 1900.
- The root-tubercles of Bur-Clover (*Medicago denticulata*) and of some other Leguminous plants (Proceed. Californ. Acad. of Sc., III ser., Bot., vol. II, pgg. 295-328, in-8, 1 pl.) S. Francisco 1903.
- Pim Gr. — The fungi of the counties of Dublin and Wicklow (16 pgg., in-8) Dublin 1878.
- Pirotta R. — Sulla *Uredo Betæ* Pers. (Arch. Lab. Bot. Critt. Pavia, v. I, pag. 213, in-8) Milano 1874.
- Breve notizia sul *Cystopus Capparis* De By. (N. Giorn. Bot. it., XVI, pg. 362, in-8) Firenze 1884.
- Osservazioni sopra alcuni funghi (Bull. Soc. Bot. it. 1889, pgg. 312-317, in-8) Firenze 1889.
- *Geaster fornicatus* (Huds.) Fr. (*ibid.* 1893, pag. 325, in-8) Firenze 1893.
- Sullo sviluppo del *Cladosporium herbarum* (Annuario Ist. Botan. Roma. vol. V, pgg. 122-123, in-4) Roma 1894.
- Pirotta R. et Albini A. — Osservazioni sulla biologia del Tartufo giallo: *Terfezia Leonis* Tul. (Rend. Acc. Lincei, Cl. Sc., ser. V, vol. IX, pgg. 4-8, in-8) Roma 1900.
- Pizzigoni A. — Cancrena secca ed umida delle patate (N. Giorn. Bot. it., n. ser., vol. III, pgg. 50-53, in-8) Firenze 1896.
- Pizzigoni A. et Cuboni G. — Cfr. Cuboni.
- Planchon L. — Influence de divers milieux chimiques sur quelques champignons du groupe des *Dématiées*. Paris 1900.
- Plues M. — British fungi (Popular Science Review, vol. II, pgg. 322-333, in-8, 1 pl. et fig.) s. a. nec l.
- Pochettino G. — Sulla *Erysiphe communis* forma *Acanthi* (Annuario Ist. Tecn. Roma, 1881; 2 pgg.) Roma 1881.
- Poggi T. et Penzig O. — Cfr. Penzig.
- Pollacci G. — Contribuzione alla micologia ligustica. I Centuria (Atti Ist. Bot. Pavia, vol. V, pgg. 29-46, in-8, 1 tav.) Milano 1896.
- Appunti di patologia vegetale: Funghi nuovi di piante coltivate (*ibid.* pgg. 191-198; in-8, 1 tav.) Milano 1897.
- Micologia ligustica (Atti Soc. Ligustica Sc. Nat. e Geogr., vol. VII-VIII (112 pgg., in-8) Genova 1897.
- Di una nuova malattia dell'erba medica: *Ileosphaerulina Briosiana* (Atti Ist. Bot. Pavia, VII, 6 pgg., in-8, 1 tav.) Milano 1900.
- Sulla malattia dell'Olio detta *brusca* (*ibid.*, IX, 2 pgg., in-8) Milano 1901.
- Popta C. M. L. — Beitrag zur Kenntniss der Hemiasci (Flora, 1899, 50 pgg., in-8, 2 Taf.) Marburg 1899.
- Porcelli V. — Contribuzione allo studio delle ipertrofie prodotte dalla *Rhizoctonia lacerata* sulle foglie, sui rami e sui fiori del *Crataegus Oxyacantha* (Riv. Patol. veg., V, pgg. 245-252, in-8, 1 tav.) Firenze 1896.
- Potabnia A. A. — Quelques notes sur l'*Exobasidium Vitis* Prill. (12 pgg., in-8, 1 tab.) ? 1897.
- Potter M. C. — On a Canker of the Oak: *Quercus Robur* (Transact. Engl. Arboricult. Soc., 1901-1902; 8 pgg., in-8, figg.) ? 1902.
- Pound R. — A revision of the *Luco-raceæ* with especial reference to species reported from North-Ame-

- rica (Minnesota Botan. Studies, Bull. n. 9 (1894) pgg. 87-105, in-8) Minneapolis 1894.
- Pound R. et Clements F. E. — Cfr. *Clements*.
- Prain D. et Cunningham D. D. — Cfr. *Cunningham D. D.*
- Prillieux Ed. — Maladies des plantes agricoles et des arbres fruitiers et forestiers causées par des parasites végétaux (2 voll. in-8) Paris 1895-1897.
- Les périthécies du *Rosellinia necatrix* (Compt. rend. Acad. d. Sc. Paris, t. CXXXV; 4 pgg., in-4) Paris 1902.
- Prillieux Ed. et Desjacroix G. — Maladies des Muriers (Annal. Inst. Agron., t. XIII, 42 pgg., in-8, 4 pl.) Nancy 1894.
- et — La brûlure des feuilles de la Vigne produite par l'*Exobasidium Vitis* (Compt. rend. Acad. d. Sc. Paris, 1894, 3 pgg., in-4) Paris 1894.
- et — La gommose bacillaire, maladies des Vignes (Ann. Inst. Agron., XIV, 81 pgg. in-8, 1 pl.) Nancy 1895.
- Quekett J. — On the presence of a fungus and of masses of crystalline matter in the interior of a living Oak tree (Journ. Microsc. Science, 1863, pgg. 72-75, in-8, figg.) London 1863.
- Quélet L. — Quelques espèces critiques ou nouvelles de la flore mycologique de France (Associat. franç. p. l'Avanc. d. Sciences, 1891, 1893, 1895, 1897, 1901) Paris 1891-1901.
- Descriptions des champignons nouveaux les plus remarquables représentés dans les aquarelles de Louis de Brondeau, avec des observations sur les genres *Gyrocephalus* Pers. et *Ombrophila* Fr. (Rev. Mycol. 1892, pgg. 64-67, in-8, 1 pl.) Toulouse 1892.
- Quélet L. et Bataille F. — Flore monographique des Amanites et des Lepiotes. Paris 1902.
- Raciborski M. — Eenige observaties over de zoogenaamde « Dongkel-lanziekte » (Medd. Proefstat. West-Java te Kagok-Tegal, 1897, 5 pgg., in-8) Soerabaia 1897.
- Parasitische Algen und Pilze Java's (Bot. Inst. Buitenzorg, 1900, 184 pgg., in-8) Batavia 1900.
- Variations des champignons inférieurs sous l'influence du milieu (Rev. Gén. Botan., t. IX, 67 pgg., in-8, figg., 6 pl.) Lille 1897.
- Reess M. — Ueber den Parasitismus von *Elaphomyces granulatus* (Sitzung. physic.-medic. Soc. zu Erlangen, 1880, 5 pgg., in-8) Erlangen 1880.
- Rehm H. — *Hysteriaceae* et *Discomycetes* in Rabenhorst's Kryptogamen-Flora, II Aufl., Leipzig 1887-1896.
- Neue Arten Ascomycetum (Abh. Bot. Ver. Prov. Brandenb., XXXI, pgg. 65-66, in-8) Berlin 1890.
- Ascomycetes exsiccati; fasc. XXII-XXXII (Hedw., XXXI-XLIII) Dresden 1892-1904.
- Beiträge zur Pilzflora von Südamerika III-XVII (Hedw. XXXVI-XL) Dresden 1897-1901.
- Ascomycetes fuégiani a P. Dusén collecti (k. Vetensk. Akad. Handl., XXV, 22 pgg., in-8, 1 Taf.) Stockholm 1899.
- Ascomyceten-Studien I (Hedwigia XLII, pgg. 172-176, in-8) Dresden 1903.
- Die Discomyceten-Gattung *Aleurina* Saec. (Ann. Mycol. I, 3 pgg., in-8) Berlin 1903.
- *Sarcosoma globosum* (Schmidel)

- Rehm, ein vor 150 Jahren zuerst in Bayern aufgefundenen Discomycet (Bayer. Bot. Gesell. zu Erforsch. d. heim. Flora, Mitteil. n. 31, 1 pag. in 8) München 1904?
- Rehm H. Ascomycetes Americae borealis (Ann. Mycol. II, pgg. 32-37 et 175-178, in-8) Berlin 1904.
- Beiträge zur Ascomyceten-Flora der Voralpen und Alpen, I et II (Oesterr. Bot. Zeitschr., 1903 et 1904; 14 pgg., in-8) Wien 1903-1904.
- Beiträge zur Pilzflora von Südamerika. XIV (Hedw. XLIV, 18 pgg., in-8, 1 Taf.) Dresden 1904.
- Ascomycetes exsiccati, fasc. XXXIII (Ann. Mycol. II, pgg. 515-521, in-8) Berlin 1904.
- Revision der Gattungen *Tryblidiella*, *Rhytidhysterium*, *Tryblidaria*, *Tryblidium*, *Tryblidiopsis* (*ibid.*, pgg. 522-526, in-8) Berlin 1904.
- *Psilopezia* Berk., Syn. *Peltidium* Kalchbr., eine im Wasser lebende Discomyceten-Gattung (Bayer. Bot. Gesell. zu Erforsch. d. heim. Flora, 1904, pgg. 424-425, in-4) München 1904.
- Reichardt H. W. — Nachtrag zur Flora von Iglau (Wiener Zool.-Bot. Verein., Abh., Bd. V, pgg. 485-504, in-8) Wien 1855.
- Miscellen 21-28 (*ibid.*, 1867, 8 pgg., in-8) Wien 1867.
- Carl Clusius' Naturgeschichte der Schwämme Pannoniens (Wiener Zool.-Bot. Verhandl., XXVI, pgg. 147-186, in-4) Wien 1876.
- Reinhardt M. O. — Das Wachstum der Pilzhyphen (Prings. Jahrb., Bd. XXIII, pgg. 479-566, in-8, 4 Taf.) Berlin 1892.
- Rex G. A. — *Trichia proximella* Karst. (Proceed. Acad. Nat. Sc. Philadelphia, 1890, pgg. 436-437, in-8) Philadelphia 1890.
- Richards H. M. — On the development of the spermogonium of *Ceomanitens* (Proceed. Amer. Acad. Arts and Sc., XXVIII, pgg. 31-36, in-8, 1 pl.) Boston 1898.
- Richards H. M. — Die Beeinflussung des Wachstums einiger Pilze durch chemische Reize (Pringsh. Jahrb., XXX, pgg. 665-688, in-8) Berlin 1897.
- Richon Ch. — Description et dessin de quelques plantes cryptogames nouvelles ou extrêmement rares (pgg. 212-222, in-8, 2 pl.) Vitry 1877.
- Rick J. — Zur Pilzkunde Vorarlbergs (Oesterr. Bot. Zeitschr., 1898, 14 pgg., in-8) Wien 1898.
- Eine neue *Sclerotinia* - Art: *Scl. Bresadolae* (*ibid.*, 1900, 2 pgg., in-8) Wien 1900.
- Fungi austro-americi exsiccati, fasc. I (Annal. Mycol., II; 5 pgg., in-8) Berlin 1904.
- Fongos do Rio Grande do Sul (Brasil) (Broteria, III, pgg. 276-293, in-8) Lisboa 1904.
- Fungi austro-americi; fasc. II (Annal. mycol. III, pgg. 15-18, in-8) Berlin 1905.
- Ricker P. L. — Notes on some West American Fungi (Journ. of Mycol., VIII, pgg. 125-128, in-8, figg.) Columbus 1902.
- A preliminary list of Maine fungi (The University of Maine Studies, 1902, 86 pgg., in-8) Orono, Maine 1902.
- Notes on fungi, I. New or interesting american *Uredineae* (Journ. of Mycol., X, pgg. 165-167, in-8) Columbus 1904.
- Ridolfi C. — Sulla orittogama dell'uva (Atti Accad. Georgofili, 1852, 26 pgg., in-8) Firenze 1852.
- Rivière A. — Sur l'origine de la *Fumagine*, appelée aussi *Morfée*, *Maladie du noir* etc (Bull. Soc. Bot.

- Fr., XIV, pgg. 12-15, in-8) Paris 1867.
- Röhring J. Ch.** — Deutschlands Flora, 3^e Theil (pgg. I-X et 1-407, in-8) Frankfurt a. M. 1813.
- Rohrbeck H.** — Ueber störende Einflüsse auf das Constanthalten der Temperatur bei Vegetationsapparaten etc. (Deutsch. Medicin. Wochenschr. 1887, 11 pgg., in-8, figg.) Berlin 1887.
- Rolland L.** — De la coloration en bleu développée par l'iode sur divers champignons et notamment sur un Agaric (Bull. Soc. Myc. Fr., 1887; 4 pgg., in-8) Poligny 1887.
- Essai d'un calendrier des champignons comestibles des environs de Paris (Bull. Soc. Myc. Fr., t. VIII et IX) Lons-le-Saunier 1892-1893.
- Aliquot fungi novi vel critici Galiae praecipue meridionalis (*ibid.*, XII, 12 pgg., in-8, 2 pl.) Lons-le-Saunier 1896.
- Excursion mycologique dans le midi de la France et notamment en Corse, en octobre 1897 (*ibid.* XIV, pgg. 75-87, in-8, 1 pl.) Lons-le-Saunier 1898.
- Note sur un cas de tératologie du *Phallus impudicus* et sur la comestibilité de cette espèce (*ibid.*, XV, 6 pgg., in-8, 1 pl.) Lons-le-Saunier 1899.
- Excursions a Chamonix, été et automne de 1898 (*ibid.*, XV, 8 pgg. in-8, 1 pl.) Lons-le-Saunier 1899.
- De l'instruction populaire sur les champignons (Opt. rend. Congrès intern. Botan. à l'Exposit. univ. de 1900; 12 pgg., in-8) Lons-le-Saunier 1900.
- Une nouvelle espèce de *Ganoderma* (Bull. Soc. Mycol. Fr., XVII, 2 pgg., in-8, 1 pl.) Paris 1901.
- Champignons du Golfe-Juan (*ibid.*, 6 pgg., in-8, 2 pl.) Paris 1901.
- Rolland L.** — Un *Tricholoma* de l'exposition de Besançon 1901, et photographie des champignons (*ibid.*, XVIII, 8 pgg., in-8, 1 pl.) Paris 1902.
- Conference sur les champignons qui tuent (Annales Assoc. Natural. Levallois-Perret, an. 7; 12 pgg., in-8, figg., 1 pl.) Levallois-Perret 1902.
- Champignons des îles Baléares récoltés principalement dans la région montagneuse de Sóller. (Bull. Soc. Myc. France, XX, pgg. 1-20, 2 pl.; XXI, pgg. 1-18, 2 pl.) Paris 1904-1905.
- Observations sur quelques espèces critiques (Rev. Mycol., 1904, 5 pgg., in-8, 1 pl.) Toulouse 1904.
- Rolland L. et Fautrey F.** — Espèces nouvelles de la Côte d'Or (Rev. Mycol., 1894, 3 pgg., in-8, 1 pl.) Toulouse 1894.
- Romano R.** — Nota sul Vainuolo dell'O-livo: *Cycloconium oleaginum* Cast. (14 pgg., in-8) Macerata 1899.
- Romell L.** — Nagra ord om *Sphaeria astroidea*, *eutypa*, *leioplaca*, *lata*, *polycocca*, *aspera* och *Bertia collapsa* (Botaniska Notiser, 1892, pgg. 170-178, in-8) Lund 1892.
- Fungi novi vel critici in Suecia lecti (*ibid.*, 1895, pgg. 65-76, in-8) Lund 1895.
- Hymenomycetes austro-americani in itinere Regnelliano primo collecti (K. Svenska Vetén.-Akad. Handl., Bd. XXVI, 61 pgg., in-8, 3 tab.) Stockholm 1901.
- Rousseau M. et Bommer J. E.** — Cfr. *Bommer*.
- Rostrup E.** — Undersøgelser angaaende Svampeslaegten *Rhizoctonia* (K. D. Vidensk. Selsk. Forh. 1886, 21 pgg. in-8) Kopenhagen 1886.
- Det foerste halve Hundrede af vaertskiftende Rustsvampe (Vidensk. Meddel. naturh. Foren. 1889; 15 pgg., in-8) Kopenhagen 1889.

- Rostrup E.** — Mykologiske Meddelelser (Botan. Tidsskr., XVIII-XXII, in-8) Kopenhagen 1892-1899.
- Oest Groenlands Svampe (Meddel. om Groenland, XVIII, 39 pgg., in-8) Kopenhagen 1894.
- Die Sclerotienkrankheit der Erlenfrüchte (Zeitschr. f. Pflanzenkr., VII, pgg. 257-260, in-8, figg.) Stuttgart 1897.
- Fungi from the Faeröes (Botany of the Faeröes, part. I, pgg. 304-316, in-8) Kopenhagen 1901.
- Islands Svampe (Botanisk Tidsskr., Bd. XXV, pgg. 281-335, in-8) Kopenhagen 1903.
- Norske Ascomyceter (Vidensk. Selskabets Skrift. I; 44 pgg. in-8) Christiania 1904.
- Fungi Groenlandiae orientalis in expeditionibus G. Amdrup 1898-1902 collecti (Meddel. om Grönland, vol. XXX, pgg. 113-121, in-8) Copenhagen 1904.
- Mykologiske Meddelelser, IX: Spredte Iagttagelser fra 1899-1903 (Bot. Tidsskrift, Bd. 26, pgg. 305-317, in-8, figg.) Kjobenhavn 1905.
- Rostrup E. et Massee G.** — Flora of Koh Chang. Fungi (Bot. Tidsskr. XXIV, pgg. 205-217, in-8) Kopenhagen 1902.
- Rothert W.** — Ueber *Sclerotium hydropphilum* Sacc., einen sporenlosen Pilz (Bot. Zeit. L, 23 pgg., in-8, 1 Taf.) Leipzig 1892.
- Roumeguère C.** — Histoire des Champignons. Paris 1870.
- Champignons rapportés en 1880 d'une excursion botanique en Egypte et en Palestine par M. William Barbey (2 pgg., in-8) ? 1881.
- Note sur le *Boletus ramosus* Bull. (Rev. Mycol., 1881, pgg. 3-4, in-8) Toulouse 1881.
- Bouquet de Cryptogames rapporté des îles de l'Océan Pacifique par M. J. Remy, ancien voyageur du Muséum (*ibid.*, 1882, 3 pgg., in-8, 1 pl.) Toulouse 1882.
- Roumeguère C.** — Champignons monstrueux des carrières de phosphates de chaux du Quercy (*ibid.*, 1886, 6 pgg., in-8) Toulouse 1886.
- Roumeguère C. et Berlese A. N.** — Cfr. Berlese A. N.
- Roze E.** — Contribution à l'étude de la *Fumagine*, appelée aussi *Morfée*, *Mul du Noir*, etc. (Bull. Soc. Bot. Fr., XIV, pgg. 15-21, in-8) Paris 1867.
- Ruhland W.** — Ueber einige neue oder weniger bekannte Ascomyceten Deutschlands, nebst einem Beitrag zur Kenntniss der Pilzflora Pommerns (Abh. Bot. Ver. Prov. Brandenburg. XLI, pgg. 81-93, in-8, fig.) Berlin 1893.
- Rumm C.** — Ueber die Wirkung der Kupferpräparate bei Bekämpfung der sogenannten Blattfalkkrankheit der Weinrebe. (Ber. Deutsch. Bot. Gesell., XI, pgg. 79-93, in-8) Berlin 1893.
- Zur Frage nach der Wirkung der Kupferkalksalze bei Bekämpfung der *Peronospora viticola* (Ber. Deutsch. Bot. Gesell., XI, pgg. 445-452, in-8) Berlin 1893.
- Zur Kenntniss der Giftwirkung der Bordeaux-brühe und ihrer Bestandtheile auf *Spirogyra longata* und die Uredosporen von *Puccinia coronata* (*ibid.*, XIII, pgg. 189-192, in-8) Berlin 1895.
- Saccardo D.** — Le piante spontanee nel R. Orto Botanico di Padova (Atti Soc. Veneto-Trent. Sc. Nat., ser. II, vol. II, pgg. 452-479, in-8, 1 tav.) Padova 1896.
- Contributo alla flora micologica di Schemnitz (*ibid.*, ser. II, vol. III, 40 pgg., in-8, 1 tav.) Padova 1897.

Saccardo D. — Sulla *Volutella ciliata* (A. et S.) Fr. — Ricerche intorno al suo sviluppo (Malp., XI, pgg. 225-229, in-8, 1 tav.) Genova 1897.

— Contribuzione alla micologia veneta e modenese (*ibid.*, XII, pgg. 201-228, in-8, 2 tav.) Genova 1898.

— Supplemento micologico alla *Flora Veneta Crittogamica, parte I*, di G. Bizzozzero (110 pgg., in-8) Padova 1899.

— Aggiunte alla flora veneta micologica e nuove specie di Funghi per la flora italiana (Atti Ist. Ven., LXI, parte II, pgg. 709-724, in-8) Venezia 1902.

— Aggiunte alla micologia romana (Le Staz. sper. agr. ital., XXXVII, 81 pgg., in-8) Modena 1904.

Saccardo F. et De-Toni G. B. — Cfr. *De Toni G. B.*

Saccardo P. A. — Conspectus generum Pyrenomycetum italicorum (Nuov. Giorn. Bot. it., VIII, pgg. 11-15, in-8) Firenze 1876.

— *Michelia*. Patavii-1877-1882.

— I funghi della provincia di Venezia (in *Sormani Moretti*: La provincia di Venezia, pgg. 100-101, in fol.) Venezia 1880-81.

— Funghi veneti novi vel critici, series XIII (*Michelia*, II, pgg. 528-563, in-8) Patavii 1882.

— Genera Pyrenomycetum schematice delineata (8 pgg., in-8, 14 tab.) Patavii 1883.

— Funghi italici autographice delineati, tab. 1281-1500: Patavii 1883-1886.

— Intorno ad un precursore nella analisi microscopica degli Ascomiceti (Atti Ist. Veneto, ser. VII, t. I, pgg. 797-802, in-8) Venezia 1890.

— Chromotaxia seu Nomenclator colorum (22 pgg., in-8, 2 tab.) Patavii 1891. Edit. alt. 1894.

— Funghilli aliquot Herbarii regi Bru-

xellensis (Bull. Soc. roy. Bot. Belg., XXXI, pgg. 224-233, in-8) Bruxelles 1892.

Saccardo P. A. — I nomi generici dei funghi e la riforma del Dott. O. Kuntze (Atti Congr. Bot. internaz. Genova 1892, 6 pgg., in-8) Genova 1892.

— Il numero delle piante (*ibid.*, 9 pgg., in-8) Genova 1892.

— *Mycoetes aliquot australienses* (Hedw. 1893, pgg. 56-59, in-8, 1 tab.) Dresden 1893.

— *Mycetes sibirici, pugillus alter* (Bull. Soc. Bot. it. 1893, pgg. 213-221, in-8) Firenze 1893.

— *Fungilli novi europæi et asiatici* (Grevillea, XXI, pgg. 65-69, in-8, 1 pl.) London 1893.

— *Florula mycologica lusitanica* (63 pgg., in-8) Coimbra 1893.

— *Fungi aliquot brasilienses phyllogeni* (Bull. Soc. roy. Bot. Belg., XXXV, pgg. 127-132, in-8, 2 pl.) Bruxelles 1896.

— *Mycetes sibirici, pugillus tertius* (Malp., X, 27 pgg., in-8, 2 tab.) Genova 1896.

— I prevedibili funghi futuri secondo la legge d'analogia (Atti Ist. Ven., ser. VII, t. VIII, pgg. 45-51, in-8, 3 tav.) Venezia 1896.

— Notes mycologiques, II sér. (Bull. Soc. Myc. Fr., XII, pgg. 64-81, in-8, 3 pl.) Lons-le-Saunier 1896.

— Appendix in *Bresadola « Hymenomyces hungarici kmetiani »* (Atti Accad. Agiati, ser. III, vol. III, pgg. 117-120, in-8) Rovereto 1897.

— Funghi dell'isola del Giglio (in S. Sommier: *L'isola del Giglio e la sua flora*) (3 pgg., in-8) Torino 1900.

— Malattia dei Peri: *Septobasidium Michelianum* (Gazz. del Contadino, 1902, n. 26) Treviso 1902.

- Saccardo P. A.** — Manipolo di Micro-
miceti nuovi (Rend. Congr. Bot.
Palermo 1902, 15 pgg. in-8, 1 tav.)
Palermo 1902.
- Floræ mycologicæ lusitanicæ con-
tributio XII (Bol. Soc. Broteriana,
XIX, 16 pgg., in-8) Coimbra 1902.
- Una malattia crittogamica nelle
frutta del Mandarino: *Alternaria*
tenuis for. *chalaroides* (Giorn. Vi-
tic. ed Enol. Avellino, XI, 3 pgg.,
in-8) Avellino 1903 (et in Ann.
Myc. vol. I) Berlin 1903.
- Notæ mycologicæ ser. III (Ann.
Myc., I, pgg. 24-29, in-8) Berlin
1903.
- Notæ mycologicæ ser. IV (*ibid.*, II,
8 pgg., in-8, 1 tab.) Berlin 1904.
- Funghi raccolti dal Dott. A. Tel-
lini nell'Eritrea (2 pgg., in-8) U-
dine 1904.
- De diagnostica et nomenclatura my-
cologica admonita quædam (Ann.
Myc., II, pgg. 195-198, in-8) Ber-
lin 1904.
- Saccardo P. A. et Berles A. N.** —
Una nuova malattia del Frumento
(Riv. Patol. veg., IV, pgg. 56-66,
in-8, 2 tav.) Firenze 1895.
- Saccardo P. A. et Bresadola G.** —
Pugillus mycetum australiensium
(Malp., IV, 15 pgg., in-8, 1 tav.)
Genova 1890.
- Saccardo P. A. et Cavara F.** — *Tu-
berculina sbrozii* n. sp. parassita
delle foglie di *Vinca major* (N.
Giorn. Bot. ital., n. ser., vol. VI,
pgg. 322-328, in-8, 1 tav.) Firenze
1899.
- Funghi di Vallombrosa. Contrib. I
(*ibid.*, vol. VII, pgg. 272-310, in-8,
figg.) Firenze 1900.
- Saccardo P. A. et Ellis J. B.** — Cfr.
Ellis.
- Saccardo P. A. et Fautrey F.** — Nou-
velles espèces de champignons de
la Côte d'Or (Bull. Soc. Myc. Fr.,
XVI, 7 pgg., in-8, 1 pl.) Lons-le-
Saunier 1900.
- Saccardo P. A. et Lindau G.** — *Elen-
chus fungorum novorum* qui anno
1896 innotuerunt, adjectis addita-
mentis (Hedw., B.I. XXXVI, pgg.
I-LVI, in-8) Dresden 1897.
- Saccardo P. A. et Maire R.** — Sur
un nouveau genre de Phacidiactes
(Ann. Myc. I, pgg. 417-419, in-8,
figg.) Berlin 1903.
- et — Notes mycologiques (*ibid.*, 5
pgg., in-8) Berlin 1903.
- Saccardo P. A. et Mattiolo O.** —
Contribuzione allo studio dell' *E-
domyces leproides* Sacc. (Malp. X,
10 pgg., in-8, 1 tav.) Genova 1895.
- Saccardo P. A., Peck Ch. H. et Tre-
lease W.** — The fungi of Alaska
(Harriman Alaska Exped., vol. V,
pgg. 13-53, in-8, 6 pl.) Washington
1904.
- Saccardo P. A. et Penzig O.** — Dia-
gnoses fungorum novorum in in-
sula Iava collectorum:
ser. I. (Malp., XI, 27 pgg., in-8) Ge-
nova 1897.
ser. II (Malp., XI, 42 pgg., in-8)
Genova 1897.
ser. III (Malp., XV, 60 pgg., in-8)
Genova 1901.
- et — Icones fungorum javanicorum
(pgg. 1-124, tab. I-LIII, in-8) Lei-
den 1904.
- Saccardo P. A. et Traverso G. B.** —
Contribuzione alla flora micologica
della Sardegna (Ann. Myc., I, pgg.
427-444, in-8, 1 tab.) Berlin 1903.
- et — Micromiceti italiani nuovi o in-
ressanti (Bull. Soc. Bot. it. 1904,
pgg. 207-221, in-8, figg.) Firenze 1904.
- Sadebeck R.** — Beobachtungen und
Untersuchungen über die Pilzve-
getation in der Umgebung von
Hamburg (25 pgg., in-8) Hamburg
1881.
- Die parasitischen Exoascen. Eine

- Monographie (Jahrb. Hamburgisch. Wissensch. Anstalten, X, 110 pgg., in-8, 3 Taf.) Hamburg 1893.
- Sadebeck R.** — Einige neue Beobachtungen und kritische Bemerkungen über die *Exoascæ* (Ber. Deutsch. Bot. Gesell., XIII, pgg. 265-280, in-8, 1 Taf.) Berlin 1895.
- Beobachtungen und Bemerkungen über die durch *Lemileia vastatrix* verursachte Blattfleckenkrankheit der Kaffeebäume (Forstl. Naturw. Zeitschr., IV, 9 pgg., in-8) München 1895.
- Sadler J.** — Notice of a new species of Agaric: *Ag. (Clitocybe) Sadleri* Berk. (Trans. Bot. Soc. Edinburgh, XIII, pgg. 216-217, in-8, 1 pl.) Edinburgh 1877.
- Saint Lager (Dr.)** — *Ecidium*, non *Acidium* (Soc. Bot. Lyon, 1896, pgg. 38-39, in-8) Lyon 1896.
- Salmon E. S.** — Certain structures in *Phyllactinia* Lév. (Journ. of Bot., XXXVII, pgg. 449-454, in-8, 1 pl.) London 1899.
- A monograph of the *Erysiphaceæ*. New York 1900.
- New or rare british fungi (Journ. Quekett Microsc. Club, ser. II, vol. VII, pgg. 371-376, in-8, 1 pl.) London 1900.
- A new species of *Uncinula* from Japan (Journ. of Bot., 1900, pgg. 426-427, in-8, fig.) London 1900.
- The *Erysiphaceæ* of Japan (Bull. Torr. Bot. Club, XXVII, pgg. 437-450, in-8, 1 pl.) New York 1900.
- The american Gooseberry Mildew in Ireland (Journ. roy. Hortic. Soc., XXVI, 2 pgg., in-8, London 1902.
- Supplementary notes on the *Erysiphaceæ* (Bull. Torr. Bot. Club, XXIX, pgg. 1-22, 83-109, 181-210, 302-316, 647-649, in-8, 3 pl.) New York 1902.
- Infection-powers of ascospores in *Erysiphaceæ* (Journ. of Bot., XLI, pgg. 159-165 et 204-212, in-8) London 1903.
- Salmon E. S.** — *Cercosporites* sp., a new fossil fungus (*ibid.*, pgg. 127-130, in-8, fig.) London 1903.
- On specialization of parasitism in the *Erysiphaceæ* (Beih. Bot. Centralbl., XIV, pgg. 261-315, in-8, 1 Taf.) Halle 1903.
- Ueber die zunehmende Ausbreitung des amerikanischen Stachelbeer-Mehlthaus (*Sphaerotheca mors-uvæ*) in Europa (Zeitschr. f. Pflanzenkr., XIII, 5 pgg., in-8, fig.) Stuttgart 1903.
- Cultural experiments with biologic forms of the *Erysiphaceæ* (Proceed. roy. Soc. London, vol. 73, pgg. 116-118, i. -8) London 1904.
- Cultural experiments with biologic forms of the *Erysiphaceæ* (Philos. Trans. roy. Soc. London, ser. B, vol. 197, pgg. 107-122, in-4) London 1904.
- Cultural experiments with the Barley Mildew: *Erysiphe graminis* DC. (Ann. Myc., II, pgg. 70-99, in-8) Berlin 1904.
- On *Erysiphe graminis* and its adaptive parasitism within the genus *Bromus* (Ann. Myc., II; 49 pgg., in-8, figg.) Berlin 1904.
- On specialisation of parasitism in the *Erysiphaceæ* II (The New Phytologist, III, pgg. 109-121, in-8) London 1904.
- Mycological Notes (Journ. of Bot., 1904, pgg. 182-186, in-8) London 1904.
- On the identity of *Ovulariopsis* Patouill. and Hariot with the conidial stage of *Phyllactinia* Lév. (Ann. Myc. II, pgg. 438-444, in-8, 1 pl.) Berlin 1904.
- Further cultural experiments with « biologic forms » of the *Erysipha-*

- ceae* (Annal. of Bot., XIX, pgg. 125-148, in-8) London 1905.
- Salmon E. S.** — Preliminary Note on an endophytic species of the *Erysiphaceae* (Annal. mycol. III, pgg. 82-83, in-8) Berlin 1905.
- Cultural experiments with an *Oidium* on *Euonymus japonicus* L. fil. (*ibid.*, pgg. 1-15, 1 pl.) Berlin 1905.
- On the present aspect of the epidemic of the american Gooseberry-mildew in Europe (Journ. Roy. Horticult. Society, vol. XXIX, pgg. 1-9, in-8, fig.) London 1905.
- Supposed species of *Ocularia* (Journ. of Botany, 1905, 1 pag., in-8) London 1905.
- On two supposed species of *Ocularia* (*ibid.*, pgg. 41-44, in-8, 1 pl.) London 1905.
- Salmon E. S.** et **Massee G.** — Cfr. *Massee*.
- Sapolini G.** — Dei funghi velenosi (24 pgg., in-8, 7 tav.) Milano 1890.
- Sarnthein L. (von)** — Berichte über floristische Durchforschung von Tirol und Vorarlberg. — Locis variis, 1887-1898.
- Ein Beitrag zur Pilzflora von Tirol (Oesterr. Bot. Zeitschr., 1900, 2 pgg. in-8) Wien 1900.
- Beiträge zur Pilzflora von Tirol (*ibid.*, 1900-1903) Wien 1900-1903.
- Savastano L.** — Esperimenti sul parassitismo dell' *Agaricus melleus* Vahl (N. Giorn. Bot. ital. XIX, pgg. 97-100, in-8) Firenze 1887.
- La vaiolatura degli agrumi (Boll. Soc. Naturalisti Napoli, ser. I, vol. I, 7 pgg., in-8) Napoli 1887.
- Scalia G.** — Prima contribuzione alla conoscenza della flora micologica della provincia di Catania (25 pgg., in-8) Catania 1899.
- Un nuovo micromicete degli agrumi: *Macrophoma (Cyl.) Aurantii* n. sp. (Nuova Rassegna, 1900, 6 pgg., in-8) Catania 1900.
- Scalia G.** — I funghi della Sicilia orientale e principalmente della regione Etna (Atti Accad. Gioenia So. Nat., ser. IV, vol. XIII, XIV, XV) Catania 1900-1902.
- I serie (55 pgg., in-4) Catania 1900.
- II serie (42 pgg., in-4) Catania 1901.
- III serie (17 pgg., in-4) Catania 1902.
- Intorno ad una nuova forma del *Fructicladium dendriticum* (Boll. Acc. Gioenia So. Nat., fasc. LXX, 5 pgg., in-8) Catania 1901.
- Micromycetes aliquot siculi novi (Rendic. Congr. Bot. Palermo 1902, 12 pgg., in-8) Palermo 1902.
- Di una nuova malattia dell' *Asclepias curassavica* Spr. (L' Agricoltore calabro-sicilo, XXVII, 7 pgg., in-8) Catania 1902.
- Sulla ruggine del *Muscari monstrosum* L. (*ibid.*, 4 pgg., in-8) Catania 1903.
- Mycetes siculi novi, II. (Atti Accad. Gioenia So. Nat., ser. IV, vol. XVII, 14 pgg., in-4) Catania 1903.
- Schellenberg H. C.** — Der Blasenrost der Arve (Naturw. Zeitschr. f. Land- u. Forstwirtschaft., 1904, 9 pgg. in-8, figg.) Stuttgart 1904.
- Schenk A.** — *Peroaspora Sempervivi* (Sitzungsb. Naturf. Gesell. Leipzig, 1875, pgg. 70-73, in-8) Leipzig 1875.
- Scherffel A.** — Zur Kenntniss einiger Arten der Gattung *Trichia* (Ber. Deutsch. Bot. Gesell., X, pgg. 212-218, in-8, fig.) Berlin 1892.
- Schnabl J. N.** — Mykologische Beiträge zur flora Bayerns (Ber. Bayer. Bot. Gesell., II, pgg. 63-69, in-4) München 1892.
- Schnabl J. N.** et **Allescher A.** — Cfr. *Allescher*.
- Schneider W. G.** — Cfr. *Schroeter*.
- Schrenk H. (von)** — Note on *Tubercularia pezizolidea* Schw. (Bull.

- Torr. Bot. Club, XXI, p. 385-388, in-8, 1 pl.) New York 1894.
- Schrenk H. (von) — A sclerotoid disease of Beech root (Rep. Mo. Bot. Gard., vol. X, pgg. 61-70, in-8, 2 pl.) St. Louis 1899.
- A disease of *Taxodium distichum* known as Peckiness also a similar disease of *Libocedrus decurrens* known as Pin-rot. (*ibid.*, vol. XI, 55 pgg. in-8, figg., 6 pl.) St. Louis 1899.
 - Two diseases of Red Cedar, caused by *Polyporus juniperinus* n. sp. and *P. carneus* Nees (U. St. Dep. of Agric., Divis. of veg. Phys. and Pathol., Bul. 21; 21 pgg. in-8, 7 pl. et figg.) Washington 1900.
 - Some diseases of New England Conifers. A preliminary report (*ibid.*, Bul. 25; 56 pgg., in-8, figg., 15 pl.) Washington 1900.
 - A disease of the Black Locust (*Robinia pseudacacia*) (12 Ann. Rep. of Missouri Bot. Gard., pgg. 21-31, in-8, 3 pl.) St. Louis 1901.
 - On the teaching of vegetable Pathology (Bull. Torr. Bot. Club, XXIX, pgg. 57-65, in-8) New York 1902.
 - The «bluing» and the «red rot» of the western yellow Pine, etc. (U. St. Dep. of Agr., Bur. of Plant-ind., Bul. 36; 40 pgg., in-8, 14 pl.) Washington 1903.
 - The bitter-rot fungus (Science XVII, pgg. 750-751, in-8) New York 1903.
- Schroeter J. — *Protomyces graminicola* Sacc. (Hedw. 1879, 5 pgg., in-8) Dresden 1879.
- Untersuchungen der Pilzgattung *Physoderma* (Bot. Centralbl., XI, 3 pgg., in-8) Cassel 1882.
 - Mykologische Mitteilungen (Jahresh. Schles. Gesell. f. vaterl. Cultur, 1886, 4 pgg., in-8) Breslau 1886.
 - Ueber eine Reise des Herrn E. Frank nach den Azoren und der Küste von Marokko (*ibid.*, 1892, 8 pgg., in-8) Breslau 1892.
- Schroeter J. — Ueber südamerikanische Pilze (*ibid.*, 3 pgg., in-8) Breslau 1892.
- Pilzkrankheiten des Weinstockes in Schlesien (Hedw. 1892, pgg. 114-119, in-8) Dresden 1892.
- Schroeter J. et Cohn F. — Untersuchungen über *Pachyma* und *Mytilia* (Abh. Naturw. Ver. Hamburg, XI, 16 pgg., in-4, 1 Taf.) Hamburg 1891.
- Schroeter J., Dietel P., Fischer A., Hennings P., Lindau G. — Fungi, in Engler et Prantl Die natürlichen Pflanzenfamilien, I Theil. Leipzig 1892-1900.
- Schroeter J. et Schneider W. G. — Uebersicht der in Schlesien gefundenen Pilze (20 pgg., in-8) Breslau? 1870.
- Schulzer St. (von Müggenburg) — Systematische Aufzählung der Schwämme Ungarns, Slavonies und des Banates (Verh. k. k. zool.-bot. Gesell. Wien, VII, pgg. 127-152, in 8) Wien 1857.
- Bemerkungen über den Polymorphismus einiger Pilze (*ibid.*, XIX, pgg. 389-394, in-8) Wien 1869.
 - Pilze an Quittenästen (*ibid.*, XXI, pgg. 1217-1260, in-8, 1 Taf.) Wien 1871.
 - Eine Beleuchtung unserer mykologischen Zustände (35 pgg., in-8) Agram 1886.
- Schützenberger F. — Le fermentazione. Milano 1876.
- Schwarz Fr. — Die Erkrankung der Kiefer durch *Cenangium Abietis*. Jena 1895.
- Scofield C. S. — Some preliminary observations on *Dictiophora Ravenelii* Burt. (Minnesota Bot. Studies, vol. II, p. IV, p. 525-536, in-8, 3 pl.) Minneapolis 1900.

- Scopoli J. A. — *Iter tyrolense* (J. A. Scopoli *Annus historico-naturalis*, pgg. 37-96, in-16) Lipsiae 1769-70.
- Seaver F. J. — The Discomycetes of eastern Iowa (Bull. Lab. Nat. Hist. St. Univ. Iowa, vol. V, n. 4, pgg. 230-297, in-8, 25 pl.) Iowa 1904.
- Selby D. — The Ohio *Erysipheae* (Ohio Agr. Exp. Stat., Bull. n. 3, 11 pgg., in-8, 1 pl.) Norwalk 1893.
- Investigation of plant diseases in forcing house and garden (*ibid.*, Bull. 73, pgg. 221-246, in-8, figg.) Norwalk 1897.
 - Some diseases of orchard and garden fruits (*ibid.*, Bull. 79, pgg. 97-141, in-8, figg.) Norwalk 1897.
 - Spray calendar (*ibid.*, Suppl. Bull. 79) Norwalk 1897.
 - Vegetable Patology (Journ. of Columbus Hort. Soc., 1897, 5^a pgg., in-8, 2 pl.) Columbus 1897.
 - Certain troublesome diseases of Tomatoes and Cucurbits (*ibid.*, XI, 4 pgg., in-8, 2 pl.) Columbus 1897?
 - Unlisted Ohio fungi (Fifth Ann. Rep. Ohio State Acad. of Sc., 1 pg., in-8) Columbus 1897?
 - Some diseases of Wheat and Oats (Ohio Agr. Exp. Stat., Bull. 97, pgg. 31-61, in-8, figg.) Columbus 1898.
 - Further studies upon spraying Peach trees and upon diseases of the Peach (*ibid.*, Bull. 104, pgg. 201-216, in-8, 3 pl.) Columbus 1899.
 - Further studies on Cucurbit, Melon and Tomato diseases (*ibid.*, Bul. 105, pgg. 217-235, in-8, figg.) Columbus 1899.
 - Investigations of plant diseases, 1891-1899 (*ibid.*, Bull. 111, pgg. 93-142, in-8, figg., 8 pl.) Columbus 1899.
- Selby D. et Kellermann W. A. — Analytical synopsis of the groups of Fungi (*ibid.*, Bull. n. 3, 8 pgg., in-8) Norwalk 1898.
- Serra A. et Mattei G. E. — Cfr. *Mattei*.
- Sestini F. et Mori A. — In qual modo agisce lo zolfo sull'Oidio delle Viti (Atti Accad. Georg., XIII, 27 pgg., in-8) Firenze 1890.
- Seynes J. (de) — Cfr. *De Seynes*.
- Shear C. L. — Our Puffballs. II (Asa Gray Bull., VII, pgg. 105-110, in-8, 1 pl.) Takoma 1899.
- Generic nomenclature (Bot. Gazette, XXXIII, pgg. 220-229, in-8) Chicago 1902.
 - Mycological notes and new species (Bull. Torr. Bot. Club, XXIX, pgg. 419-457, in-8) New York 1902.
 - *Arachniotus trachyspermus*, a new species of the *Gymnoascaceae* (Science, n. s., vol. XVI, pag. 138) New York 1902.
- Sheldon E. P. — A study of some Minnesota Mycetozoa (Minn. Bot. Studies. Bull. n. 9, pgg. 462-482, in-8) Minneapolis 1895.
- Sismonda E. — Funghi velenosi (Gazzetta piemontese 1848, n. 336; 12 pgg., in-16) Torino 1848.
- Smith A. L. — East african fungi (Journ. of Bot., 1895, 5 pgg., in-8) London 1895.
- Fungi new to Britain (Trans. British Mycol. Soc.) London 1899-1902.
 - I (1899) pgg. 113-116.
 - II (1900) pgg. 150-158, 1 pl.
 - III (1902) pgg. 31-40.
 - On some fungi from the West Indies (Journ. Linn. Soc., Bot. vol. XXXV, 19 pgg., in-8, 3 pl.) London 1900.
 - Some new microscopic fungi (Journ. Microsc. Soc. 1900, pgg. 422-424, in-8, 1 pl.) London 1900.
 - Fungi found on Farm seeds when tested for germination, with an account of two fungi new to Britain (*ibid.*, pgg. 618-618, in-8, 1 pl.) London 1901.
 - A disease of the Gooseberry (Journ.

- of Bot. 1902, pgg. 19-23, in-8) London 1902.
- Smith A. L. — New or critical microfungi (*ibid.*, XLI, pgg. 257-260, in-8, 1 pl.) London 1903.
- Smith C. L. — Some central american Pyrenomycetes (Bull. Labor. Nat. Hist. State Univers. Iowa, II, pgg. 394-415, fig., in-8) Iowa 1893.
- Smith C. L. et Mac Bride Th. H. — Cfr. *Mac Bride*.
- Smith E. F. — Peach growing for Market (U. St. Dep. of Agr. — Farmer's Bull. n. 33, 29 pgg. in-8, figg.) Washington 1895.
- *Bacillus tracheiphilus* sp. n., die Ursache der Verwelkens verschiedener Cucurbitaceen (Centralbl. f. Bakt. etc., 1895, pgg. 364-373, in-8) Jena 1895.
- The Watermelon Wilt and other Wilt diseases due to *Fusarium* (Proceed. Amer. Assoc. f. Advanc. of Sc., XLVI) Salem, Ma. 1895.
- The southern Tomato blight (*ibid.*) Salem, Ma. 1895.
- A bacterial disease of the Tomato, Eggplant and Irish Potato: *Bacillus Solanacearum* n. sp. (U. St. Dep. of Agr., Divis. of veg. Phys. a Pathol., Bull. n. 12, 28 pgg., in-8, 2 pl.) Washington 1896.
- *Pseudomonas campestris*, the cause of a brown rot in Cruciferous plants (Centralbl. Bakter. etc., 1897, pgg. 284, 403, 478, in-8, 1 Taf.) Jena 1897.
- The spread of plant diseases (Massachusetts Hort. Soc., 1897, 19 pgg., in-8) Boston 1898.
- Wakker's Hyacinth Bacterium — et — *Bacillus Phaseoli* n. sp. (Proceed. Amer. Assoc. f. Advanc. of Sc., XLVI, pgg. 287-290, in-8) Salem, Ma. 1897.
- Notes on Stewart's Sweet-corn germ: *Pseudomonas Stewartii* n. sp. (*ibid.*, XLVII, pgg. 422-426, in-8) Salem, Ma. 1898.
- Smith E. F. — The « Little Peach » disease (Fennville Herald, 1898, 12 pgg., in-8) Fennville 1898.
- *Pseudomonas campestris* (Pammel) Erw. Smith, die Ursache der « braun » oder « schwarz » trockenfälle des Kohls (Zeitschr. f. Pflanzenkr., VIII, 4 pgg., in-8, 1 Taf.) Stuttgart 1898.
- The black rot of the Cabbage (U. St. Dep. of Agr., Farmer's Bull. n. 68, 22 pgg., in-8) Washington 1898.
- Some bacterial diseases of Truck Crops (Trans. Penninsula Hort. Soc., pgg. 142-147, in-8) ? 1898.
- Wilt disease of Cotton, Watermelon and Cowpea: *Neocosmospora* n. gen. (U. St. Dep. of Agr., Div. of veg. Phys. a. Path., Bull. 17; 53 pgg., in-8, 10 pl.) Washington 1899.
- Are there bacterial diseases of plants? etc (Centralbl. f. Bakt. etc., V, pgg. 271-278, in-8) Jena 1899.
- Wakker's Hyacinth germ: *Pseudomonas Hyacinthi* Wakker (U. St. Dep. of Agr., Div. of veg. Phys. a. Path., Bull. n. 26; 45 pgg. in-8, figg., 1 pl.) Washington 1901.
- The cultural characters of *Pseudomonas Hyacinthi*, *Ps. campestris*, *Ps. Phaseoli* and *Ps. Stewartii* - four one - flagellate yellow bacteria parasitic on plants (*ibid.*, Bull. n. 28; 153 pgg., in-8) Washington 1901.
- Plant Pathology: a retrospect and prospect (Science, XV n. s., pgg. 601-612, in-8) Washington 1902.
- The effect of black-rot on Turnips (U. St. Dep. of Agr., Bur. of Plant ind., Bull. n. 29; 20 pgg., in-8, 14 pl.) Washington 1903.
- Observations on a hitherto unreported bacterial disease the cause of

- wich enters the plant through ordinary stomata (Science, n. s., vol. XVII, 4 pgg., in-8) New York 1903.
- Smith E. F. — The Olive tubercle — et — Bacterial leaf spot diseases (*ibid.*, vol. XIX, 2 pgg., in-8) New York 1904.
- Smith E. F. et Swingle D. B. — The dry rot of Potatoes due to *Fusarium oesysporum* (U. St. Dep. of Agr., Bur. of Plant Ind., Bull. n. 55; 64 pgg., in-8, 8 pl.) Washington 1904.
- Smith W. G. — The *Glauclolus* disease (Monthly Microsc. Journ., 1876, pgg. 304-311, in-8, 2 pl.) London 1876.
- Diseases of field and garden crops. London 1884.
- Snyder L. — The germ of Pear blight (Proceed. Acad. of Science, 1897, pgg. 150-156, in-8, fig.) Boston? 1897.
- Solla R. — Note di Fitopatologia (352 pgg., in-8, 11 tav.) Firenze 1838.
- Enumerazione dei casi patologici osservati nella foresta di Vallombrosa (Bull. Soc. Bot. ital. 1896, pgg. 269-278, in-8) Firenze 1896.
- Soppitt H. E. et Crossland C. — New british fungi found in West Yorkshire (The Naturalist, 1899, pgg. 27-31, in-8, 1 pl.) London 1899.
- Sorauer P. — Handbuch der Pflanzenkrankheiten, Ed. alt, Berlin 1886.
- Sorokin N. W. — Un nouveau parasite de la Chenille de la Betterave: *Sorosporella Agrotidis* n. g. et sp. (Bull. scientif. de la France et de la Belgique, 1889, pgg. 76-88, in-8, fig.) Paris 1889.
- Fungi caucasici (rossice). Tiflis 1902.
- Spaulding P. — Two fungi growing in holes made by wood-boring insects (Rp. Mo. Bot. Gard., vol. 15, pgg. 73-77, in-8, 3 pl.) St. Louis 1904.
- Spegazzini C. — Fungi nonnulli veneti novi (Rev. Mycol., II, pag. 32, in-8, figg.) Toulouse 1880.
- Spegazzini C. — Las Falsideas argentinas (Ann. Socied. Cientif. Argentina, t. XXIV, 12 pgg., in-8) Buenos Aires 1887.
- Las Trufas argentinas (*ibid.*, 8 pgg., in-8) Buenos Aires 1887.
- Phycomyceteae argentine (Revista Argentina de Hist. Nat., I, 12 pgg., in-8) Buenos Aires 1891.
- El polvillo de la Cana de Azúcar en Tucuman (La Revista azucarera, 1895, n. 16; 29 pgg., in-8) Buenos Aires 1895.
- Hongos de la Cana de Azúcar (Rev. Facultad Agronom. y Veterin., 1896, pgg. 227-253, in-8) La Plata 1896.
- Contribucion al estudio de la flora de la Sierra de la Ventana (Ministerio de Obras publicas de la Provincia de Buenos Aires, 1896, 86 pgg., in-8) La Plata 1896.
- Las enfermedades del Café en Costarica (Rev. Facult. Agron. y Veter., 1896, pgg. 339-346, in-8) La Plata 1896.
- Sobre una nueva enfermedad del Tabaco (14 pgg., in-8, figg.) La Plata 1898.
- Mycetes argentinenses, ser. I (Anales Soc. Cientif. Argent., t. XLVII y L, 20 pgg., in-8) Buenos Aires 1899.
- Fungi argentini novi vel critici (Anal. Mus. Nacion. Buenos Aires, t. VI, pgg. 81-367, in-8, 2 tab.) Buenos Aires 1899.
- Mycetes argentinenses, ser. II (*ibid.*, t. VIII, pgg. 49-89, in-8) Buenos Aires 1902.
- Notes synonymiques (*ibid.*, ser. III, t. II, pgg. 7-9, in-4) Buenos Aires 1903.
- Speschnew N. N. — Materiali per una flora micologica del Caucaso (rossice). (14 pgg., in-8) Tiflis 1896?

- Speschnew N. N.** — Les parasites végétaux de la Caïkhétie (rossice). (70 pgg., in-8) Tiflis 1897.
- Fungi parasitici transcaucasici novi aut minus cogniti (rossice) (14 pgg., in-8, 1 tab.) Tiflis 1900.
- Fungi parasitici transcauspiici et turkestanici novi aut minus cogniti (rossice) (25 pgg., in-8, 2 tab.) Tiflis 1901.
- Fungi parasitici *Theæ* ad finem 1902 observati (Acta Horti Botan. Tiflis, VI, pgg. 71-74, in-8) Tiflis 1902.
- Ueber eine, durch Pilze auf einigen Formen des Wachholders hervorgerufene teratologische Erscheinung (*ibid.*, pgg. 83-84, in-8) Tiflis 1902.
- Spica P.** — Sulla materia colorante prodotta dal *Micrococcus prodigosus* (Atti Ist. Ven., t. LIX, pgg. 1025-1031, in-8) Venezia 1900.
- Splendore A.** — Sopra una nuova specie di *Oospora* denominata *O. Nicotianæ* etc. (Rivista tecnica e di amministraz. servizi delle privative finanziarie, 1899; 27 pgg., in-8, 1 tav.) Roma 1899.
- Il «Sajorno» (Il Tabacco, 1899, n. 34, 5 pgg., in-8) Roma 1899.
- Squinabol S.** — I pseudofossili dei gneis e dei micascisti (Atti e Mem. Accad. Sc. Lett. Arti Padova, vol. XX, pgg. 33-38, in-8, 1 tav.) Padova 1904.
- Starbäck K.** — *Sphaeriaceæ* imperfecte cognitæ (Bot. Notiser, 1892, pgg. 25-31, in-8) Lund 1893.
- Studier i Elias Fries Svampherbarium, I: *Sphaeriaceæ* imperfecte cognitæ (K. Svenska Vet. Akad. Handl., Bd. 19, Afd. 3, 114 pgg., in-8, 4 Taf.) Stockholm 1894.
- Om Parasitsvampar (Sommarmarkusenai Upsala 1895, 19 pgg., in-8, figg.) Upsala 1895.
- Starbäck K.** — Discomyceten-Studien (K. Svenska Vet. Akad. Handl., Bd. XXI, 42 pgg., in-8, 2 Taf.) Stockholm 1895.
- *Sphaerulina halophila*, en parasitisk Pyrenomycet (*ibid.*, 19 pgg., in-8, 1 Taf.) Stockholm 1896.
- Nagra märkligare skandinaviska Ascomycetfynd (Bot. Notiser, 1898, pgg. 201-219, in-8) Lund 1898.
- Ascomyceten der ersten Regnellsehen Expedition:
I (K. Svenska Vet. Akad. Handl., Bd. XXV, 68 pgg., in-8, 2 Taf.) Stockholm 1899.
II (*ibid.*, Bd. XXVII, 26 pgg., in-8, 1 Taf.) Stockholm 1901.
III (Arkiv för Botanik, Bd. II, 22 pgg., in-8, 2 Taf.) Stockholm 1904.
- Staritz R.** — Beiträge zur Pilzkunde des Herzogtums Anhalt (Verh. Bot. Ver. Prov. Brandenburg, XLV, pgg. 59-96, in-8) Berlin 1903.
- Stefan J.** — Beitrag zur Kenntnis von *Collybia racemosa* Pers. (Hedw., XLIV, pgg. 158-167, in-8, 1 Taf.) Dresden 1905.
- Stewart F. C. et Duggar B. M.** — Cfr. *Duggar*.
- Stoneman B.** — A comparative study of the development of some antheranose (Bot. Gazette, XXVI, pgg. 69-120, in-8, 12 pl.) Chicago 1898.
- Strasser P.** — Pilzflora des Sonntagberges (N. Oe.) (Verh. k. k. zool.-bot. Gesell. Wien, 1900, pgg. 190-196, et 1901 pgg. 1-8, 359-372, 412-425, in-8) Wien 1900-1901.
- Zweiter Nachtrag zur Pilzflora des Sonntagberges (N. Oe.) 1902 (*ibid.*, Bd. LII, pgg. 429-437, in-8) Wien 1902.
- Strauss Fr. (von)** — Ueber die Persoonischen Pilzgattungen *Stilbospora*, *Uredo* und *Puccinia*. (Ann. wetter. Gesell. f. d. gesammte Naturk., Bd.

- H, pgg. 79-114, in-4, 1 Taf.) Frankfurt a. M. 1810.
- Streinz W. M.** — *Nomenclator fungorum*. Vindobonæ 1862.
- Struck C.** — Mittheilungen aus dem kaiserlichen Gesundheitsamte. I. Berlin 1881.
- Strunk H. F. et Appel O.** — Cfr. *Appel*.
- Stuart W. et Arthur J. C.** — Cfr. *Arthur*.
- Sturgis W. C.** — Conditions favoring inception and spread of fungous diseases (Rep. of Secret. of Connecticut State Board of Agric., 1894, 12 pgg., in-8) New Haven 1894.
- *Spraying Calendar* (Connect. Agr. Exp. Stat., 1895) New Haven 1895.
- Papers on fungous diseases and their treatment (*ibid.*, 1894, pgg. 113-142, in-8, 1 pl.) New Haven 1895.
- The Connecticut Agricultural Experiment Station. Report (25) for 1897. Part III (pgg. 159-222, in-8) New Haven 1898.
- Sturm J.** — Die Pilze Deutschlands (4 voll.). Nürnberg 1813-1818.
- Swingle W. T.** — Notes on fungi from western Kansas (Journ. of Mycol., IV, pag. 27, in-8) Washington 1888.
- Treatment of smuts of Oats and Wheat (U. St. Dep. of Agr., Divis. of veg. Pathol., 1892, 8 pgg., in-8, 1 pl.) Washington 1892.
- The Grain smuts: their cause and prevention (Yearb. U. St. Dep. of Agr. for 1894, pgg. 409-420, in-8, figg.) Washington 1895.
- The Grain smuts: how they are caused and how to prevent them (U. St. Dep. of Agr., Farmer's Bull. n. 75, 20 pgg., in-8, figg.) Washington 1896.
- Swingle W. T. et Webber H. J.** — The principal diseases of citrous fruits in Florida (Un. St. Dep. of Agr., Divis. of veg. Phys. a Path., Bull. n. 8, 40 pgg., in-8, figg., 8 pl.) Washington 1896.
- Sydow P.** — Pilze. Verzeichniss der neue Arten (in Just's Botanisch. Jahresb., 1895-1902) Berlin-Leipzig 1892-1903.
- Beiträge zur Kenntniss der Pilzflora der Mark Brandenburg. I (Hedw., XXXVI, pgg. 157-164, in-8) Dresden 1897. — II. (*ibid.*, XXXVIII, pgg. 134-140, in-8) Dresden 1899.
- Contributio ad floram Japoniæ mycologicam (*ibid.*, XXXVII, pgg. 206-208, in-8) Dresden 1898.
- Diagnosen neuer, aus verschiedenen Gegenden stammender Pilze (Hedw., Bd. XXXVIII, pgg. 141-144, in-8) Dresden 1899.
- Fungi natalenses (*ibid.*, pgg. 130-134, in-8) Dresden 1899.
- Sydow P. et Lindau G.** — Cfr. *Lindau*.
- Sydow P. et Sydow H.** — Fungi aliquot novi a F. Stueckert in Argentina lecti (Mém. Herb. Boiss., n. 4, 2 pgg., in-8) Genève 1900.
- et — Fungi novi japonici (*ibid.*, 5 pgg., in-8) Genève 1900.
- et — Beiträge zur Pilzflora der Insel Rügen (Hedw., Bd. XXXIX, pgg. 115-132, in-8) Dresden 1900.
- et — Mycologische Mittheilungen (*ibid.*, XL, 2 pgg., in-8) Dresden 1901.
- et — *Haplophragmium*, ein neues Genus der Uredineen (*ibid.*, pgg. 62-64, in-8, fig.) Dresden 1901.
- et — Zur Pilzflora Tirols (Oesterr. Bot. Zeitschr., 1901, 19 pgg., in-8) Wien 1901.
- et — Erwiderung auf die Magnus'sche Besprechung unserer Arbeit «Zur Pilzflora Tirols» (*ibid.*, pgg. 65-68, in-8) Dresden 1901.
- et — Uredineæ aliquot novæ boreali-americanæ (*ibid.*, pgg. 125-129, in-8) Dresden 1901.

- Sydow P. et Sydow H.** — Fungi novi brasilienses a cl. Ule lecti (Bull. Herb. Boiss., 2^a ser., t. I, pgg. 77-85, in-8) Genève 1901.
- et — Monographia Uredinearum, vol. I. Lipsiæ 1902-1904.
- et — Einige neue Uredineen I (Oesterr. Bot. Zeitschr., 1902, 4 pgg., in-8) Wien 1902.
- et — Ein Beitrag zur Pilzflora Portugals (Brotéria, II, pgg. 149-155, in-8) Lisboa 1903.
- et — Ueber die auf *Anemone narcissiflora* auftretenden Puccinien (Annal. Mycol. I, pgg. 33-35, in-8) Berlin 1903.
- et — *Asteroconium Saccardoi* n. g. et sp. (*ibid.*, pgg. 35-36, in-8) Berlin 1903.
- et — Annales Mycologici. Berlin 1903 et seq.
- Szabó Z. (von)** — Ueber eine neue Hyphomyceten-Gattung (Hedw. XLIV, pgg. 76-77, in-8, fig.) Dresden 1905.
- Takahashi Y.** — On *Ustilago virens* Cooke and a new species of *Tilletia* parasitic on Rice-plant (Tokyo Bot. Magaz., X, 5 pgg., in-8, 1 pl.) Tokyo 1896.
- On *Ustilago Panici-miliacei* (Pers.) Wint. (*ibid.*, XVI, 3 pgg., in-8, 1 pl.) Tokyo 1902.
- Tanaka, Nagane et Nobujiro** — Mycographia Nipponica. Illustrations of edible, poisonous and parasitic fungi of Nippon. Vol. I, n. 1, 22 pgg., in-8, 8 tab.) (japonice).
- Tassi Fl.** — Di alcune specie nuove di micromiceti I-III (Atti Accad. Fisiocrat., ser. IV, vol. VIII, 21 pgg., in-8) Siena 1896.
- Novæ micromycetum species descriptæ et iconibus illustratæ;
I (Rev. Mycol., 1896, pgg. 157-174, in-8, 8 tab.) Toulouse 1896.
- II (Bull. Lab. Orto Bot. Siena, vol. I, pgg. 4-15, in-8, 3 tab.) Siena 1897.
- III (*ibid.*, I, pgg. 166-168, in-8, 1 tab.) Siena 1898.
- IV (*ibid.*, II, pgg. 27-35, in-8, 2 tab.) Siena 1899.
- V (*ibid.*, II, pgg. 103-105, in-8, 1 tab.) Siena 1899.
- VI (*ibid.*, II, pgg. 139-163 et 231-232, in-8, 6 tab.) Siena 1899.
- VII (*ibid.*, III, pgg. 14-21, in-8, 2 tab.) Siena 1900.
- VIII (*ibid.*, III, pgg. 52-57, in-8, 2 tab.) Siena 1900.
- IX (*ibid.*, III, pgg. 117-132, in-8, 4 tab.) Siena 1900.
- X (*ibid.*, IV, pgg. 7-12, in-8) Siena 1901.
- Tassi Fl.** — Micologia della prov. senese:
I (Nuovo Giorn. Bot. ital., n. ser., vol. III, pgg. 22-50, in-8) Firenze 1896.
- II (*ibid.*, III, pgg. 324-369, in-8) Firenze 1896.
- III (*ibid.*, IV, pgg. 51-85, in-8) Firenze 1897.
- IV (Bull. Lab. Orto Bot. Siena, vol. I, pgg. 16-33, in-8) Siena 1897.
- V (*ibid.*, I, pgg. 169-178, in-8) Siena 1898.
- VI (*ibid.*, II, pgg. 36-58, in-8) Siena 1899.
- VII (*ibid.*, II, pgg. 164-195, in-8) Siena 1899.
- VIII (*ibid.*, III, pgg. 21-45, in-8) Siena 1900.
- IX (*ibid.*, III, pgg. 58-65, in-8) Siena 1900.
- X (*ibid.*, II, pgg. 104-114, in-8) Siena 1900.
- XI (*ibid.*, V, pgg. 93-107, in-8) Siena 1902.
- XII (*ibid.*, VI, pgg. 123-144, in-8) Siena 1904.
- Bullettino del Laboratorio ed Orto Botanico di Siena, vol. I-VI. Siena 1897-1904.

- Tassi Fl.** — Uredinearum enumeratio quae in agro senensi reperiuntur (Bull. Lab. ed Orto Bot. Siena, I, pgg. 34-3, in-8) Siena 1897.
- Micromycetes in locis variis collecti (*ibid.*, I, pgg. 60-61, in-8) Siena 1897.
- Piante raccolte nel padule di Massaciuccoli nel Pisano (*ibid.*, pgg. 61-62, in-8) Siena 1897.
- Studio biologico del genere *Diplodia* Fr. (*ibid.*, II, pgg. 5-26, in-8, 5 tav.) Siena 1898.
- Contributo alla flora crittogamica della provincia di Siracusa (*ibid.*, II, pgg. 196-207, in-8) Siena 1899.
- Micromycetes in locis variis collecti II (*ibid.*, pgg. 225-226, in-8) Siena 1899.
- Di una nuova *Rhizoctenia* (*ibid.*, III, pgg. 49-51, in-8, 1 tav.) Siena 1900.
- Nova genera fungorum (*ibid.*, III, pgg. 89-92, in-8, 2 tav.) Siena 1900.
- Fungi novi australiani (*ibid.*, III, pgg. 93-103, in-8, 3 tav.) Siena 1900.
- Una nuova specie di *Nectria* (*ibid.*, III, pgg. 115-116, in-8, 1 tav.) Siena 1900.
- Contribuzione alla flora micologica di Viareggio (*ibid.*, III, pgg. 133-138, in-8) Siena 1900.
- *Bartalinia* Fl. Tassi, nuovo genere di *Sphaeropsidaceae* (*ibid.*, III, pgg. 3-5, in-8) Siena 1900.
- *Phyllostictella* Fl. Tassi, nuovo genere di *Sierosidaceae* (*ibid.*, IV, pgg. 4-6, in-8, 1 tav.) Siena 1901.
- I generi *Phyllosticta* Pers., *Phoma* Fr., *Mucrophoma* (Sacc.) Berl. et Vogl. e i loro generi analoghi giusta la legge d'analogia (*ibid.*, V, pgg. 1-76, in-8, 1 tav.) Siena 1902.
- Note micologiche (*ibid.*, V, pgg. 77-81, in-8) Siena 1902.
- Tassi Fl.** — Nuovi micromicoeti (*ibid.*, V, pag. 108) Siena 1902.
- La ruggine dei Crisantemi (*Puccinia Chrysanthemi* Roze) (*ibid.*, VI, pgg. 149-153, in-8) Siena 1904.
- Origine e sviluppo della Leptostromaceae e loro rapporti con le famiglie affini (*ibid.*, VI, pgg. 1-124, in-8, 6 tav.) Siena 1904.
- Nuovi micromicoeti (*ibid.*, VI, pgg. 125-127, in-8) Siena 1904.
- Taxis A.** — Recherches sur l'origine des micro-organismes (Bull. Soc. d'Hortic. et Bot. de Marseille, 1885, 39 pgg., in-8) Marseille 1885.
- Taylor Th.** — Edible and poisonous Mushrooms (U. St. Dep. of Agric. Rep. of Secretary of Agric. for 1892, pgg. 282-290, in-8, 6 pl.) Washington 1893.
- Four edible Mushrooms of the United States (*ibid.*, 1891, pgg. 7-22, in-8, 5 pl.) Washington 1893.
- Eight edible and twelve poisonous Mushrooms of the United States, with directions for the culture and culinary preparation of the edible species (*ibid.*, 1890, 2 edit. pgg. 1-23, in-8, 6 pl.) Washington 1893.
- Tepper J. G. O. et Mac Alpine D.** — Cfr. *Mac Alpine*.
- Thaxter R.** — On the *Mycobacteriaceae*, a new order of *Schizomycetes* (Botan. Gaz., XVII, pgg. 389-406, in-8, 4 pl.) Chicago 1892.
- New genera and species of *Laboulbeniaceae*, with a synopsis of the known species (Proceed. Amer. Acad. of Arts a. Sc., 1893, pgg. 92-111, in-8) Boston 1893.
- New species of *Laboulbeniaceae* from various localities (*ibid.*, pgg. 156-188, in-8) Boston 1893.
- Note on *Phallo-gaster saccatus* (Bot. Gaz., XVIII, pgg. 117-121, in-8, 1 pl.) Chicago 1893.

- Thaxter R. — A new order of Schizomycetes (*ibid.*, pgg. 29-30, in-8) Chicago 1893.
- Observations on the genus *Negelia* of Reinsch (*ibid.*, XIX, pgg. 49-55, in-8, 1 pl.) Chicago 1894.
- Notes on *Laboulbeniaceæ*, with descriptions of new species (Proceed. Amer. Acad. Arts a. Sc., XXX, pgg. 467-481, in-8) Boston 1894.
- Contribution towards a monograph of the *Laboulbeniaceæ* (Mem. Amer. Acad. of Arts a. Sciences, vol. XII) Cambridge 1896.
- New or peculiar aquatic fungi (Botanical Gazette 1895-96) Chicago 1895-96:
- I: *Monoblepharis* (1895, pgg. 433-440, in-8, 1 pl.).
- II: *Gonapodia* Fischer and *Myrioblepharis* n. g. (1895, pgg. 477-485, in-8, 1 pl.).
- III: *Hustocladia* (1896, pgg. 45-52, in-8, 1 pl.).
- IV: *Rhipidium*, *Sapromyces* and *Araiospora* n. g. (1896, pgg. 317-331, in-8, 3 pl.).
- New or peculiar american Zygomycetes: I *Dispira* (Bot. Gaz., XX, pgg. 513-518, in-8, 1 pl.) Chicago 1895.
- Further observations on the *Myxobacteriaceæ* (*ibid.*, XXIII, pgg. 395-411, in-8, 2 pl.) Chicago 1897.
- New or peculiar Zygomycetes: II *Syncephalastrum* and *Syncephalis* (*ibid.*, XXIV, 15 pgg., in-8, 2 pl.) Chicago 1897.
- Preliminary diagnoses of new species of *Laboulbeniaceæ* (Proceed. Acad. of Arts and Sciences) Boston 1899-1902:
- I (vol. XXXV, pgg. 153-209, in-8) Boston 1899.
- II (vol. XXXV, pgg. 409-450, in-8) Boston 1900.
- III (vol. XXXVI, pgg. 397-414, in-8) Boston 1901.
- IV (vol. XXXVII, pgg. 21-45, in-8) Boston 1901.
- V (vol. XXXVIII, pgg. 1-57, in-8) Boston 1902.
- Thaxter R. — Mycological Notes I, II (Rhodora, 1903, pgg. 97-108, in-8, 1 pl.) Boston 1903.
- New or peculiar north american Hyphomycetes, III (Bot. Gaz., XXXV, pgg. 153-159, in-8, 2 pl.) Chicago 1903.
- Thesleff A. — Nagot om parasitiska och pa vedväxter förekommande Basidiomyceter (Forstfören. Meddeland., Bd. XI, 23 pgg., in-8) Helsingfors 1894.
- Thomas Fr. — (Mykologische Notizen) (Irmischia, Jahrg. VI, 2 pgg., in-8) Sondershausen 1886.
- Thümen F. (von) — Die Einwanderung und Verbreitung der *Peronospora viticola* in Oesterreich (Lab. k. k. chem.-physiol. Versuchs-Stat. zu Klosterneuburg, 1885, 9 pgg., in-4) Klosterneuburg 1885.
- Die *Peronospora viticola*, ihre Naturgeschichte und ihre Bekämpfung (*ibid.*, 1887, 12 pgg., in-4) Klosterneuburg 1887.
- Thümen F. (von) et Voss W. — Neue Beiträge zur Pilzflora Wiens (Verh. zool. bot. Gesell. Wien, 1878, 6 pgg., in-8) Wien 1878.
- Tiraboschi C. — Sopra alcuni Ifomiceti del mais guasto di regioni pelagrose. No'a I: i generi *Oospora*, *Aspergillus*, *Penicillium* (Annal. di Botan., vol. II, pgg. 187-168, in-8, 1 tav.) Roma 1905.
- Note di tecnica Ifomicetologica (Annali d'Igiene sperim., 1905, pgg. 63-74, in-8) Roma 1905.
- Tischler G. et Eriksson J. — Cfr. Eriksson.
- Tischutkin N. — Ueber die Rolle der Mikroorganismen bei der Ernährung insectenfressender Pflanzen

- (Acta Horti Petropolitani, vol. XII, 19 pgg., in-8) St. Petersburg, 1892.
- Tognini F.** — Contribuzione alla micologia toscana (Atti Ist. Bot. Pavia, vol. III, pgg. 45-62, in-8) Milano 1892.
- Seconda contribuzione alla micologia toscana (*ibid.*, vol. V, 21 pgg., in-8, 1 tav.) Milano 1894.
- Sopra un micromicete nuovo, probabile causa di malattia nel frumento (Rendic. Ist. Lombardo, ser. II, vol. XXIX, pgg. 862-865, in-8) Milano 1896.
- Toni (de)** — Cfr. *De' Toni*.
- Torre F. (del)** — Cfr. *Del Torre*.
- Torrend C.** — Primeira contribução para o estudo dos fungos da regiao Setubalense (Rev. Sciencias Naturaes Collegio Sao Fiel, 1902, pgg. 93-150, in-8, 1 tab.) Lisboa 1902.
- Segunda contribução etc. (Broteria, II, pgg. 123-148, in-8) Lisboa 1903.
- Toumey J. W.** — An inquiry into the cause and nature of grown gall (Public. of Univers. of Arizona Agr. Exp. Stat., Bull. n. 33; 64 pgg., in-8, figg.) Washington 1900.
- Trabut L.** — Sur une Ustilaginée parasite de la Betterave: (*Edomyces leproides* (Rev. gén. Botan., VI, 2 pgg., in-8, 1 pl.) Paris 1894.
- Destruction de l'Altise de la Vigne par un champignon parasite: *Sporotrichum globuliferum* ou *Isaria globulifera* (Rev. de Viticult., 1898, 7 pgg., in-8, figg.) Paris 1898.
- Tracy S. M. et Earle F. S.** — Mississippi Fungi (Miss. Exp. Stat., Bull. n. 34, pgg. 80-122 et n. 38, pgg. 136-153, in-8) Mississippi 1895-96.
- et — New species of fungi from Mississippi (Bull. Torr. Bot. Club, XXIII, pgg. 205-211, in-8) New York 1896.
- et — New fungi from Mississippi (*ibid.*, XXVI, pgg. 493-495, in-8) New York 1899.
- Tracy S. M. et Earle F. S.** — Some new fungi (*ibid.*, XXVIII, pgg. 184-188, in-8) New York 1901.
- Trail J. W. H.** — Additions to Scotch *Peronosporae* (Scottish Naturalist, 1888, 1 pag., in-8) Perth 1888.
- Revision of the Scotch *Perisporiaceae* (Trans. Nat. Hist. Soc. Glasgow, III, 14 pgg., in-8) Glasgow 1889.
- Fungi recorded from Mr. Boyd's List (Scott. Natural., 1890, pgg. 3-5, in-8) Perth 1889.
- Transactions of the british mycological Society.** Worcester 1896 et seq.
- Tranzschel W.** — (Uredinem novae), 4 pgg., in-8) St. Pétersbourg, s. a. (rossice).
- Culturversuche mit *Cooma interstitiale* Sohl. = *C. nitens* Schw. (Hedw., 1893, pgg. 257-259, in-8) Dresden 1893.
- Floritische Excursionen in den Gouvernements Nowgorod und Twer, etc. (Arb. k. St. Petersburg. Naturf. Gesell., Bd. XXVIII, 7 pgg., in-8) St. Pétersbourg 1898.
- Trattinnick L.** — Fungi austriaci. Wien 1830.
- Traverso G. B.** — Sulla comparsa in Italia di una rara malattia del Pomodoro: *Cladosporium fulvum* Cooke (L'Italia agricola, XXXIV, pgg. 437-440, in-8, figg.) Piacenza 1897.
- Micromiceti di Tremezzina (Malp., XIV, pgg. 457-480, in-8, 1 tav.) Genova 1900.
- Quattro nuovi micromiceti trovati nell'Orto Botanico di Padova (Rendic. Congr. Bot. Palermo 1902, 6 pgg. in-8) Palermo 1902.
- Note critiche sopra le *Sclerospora* parassite di Graminacee (Malp.,

- XVI, 11 pgg., in-8, fig.) Genova 1902.
- Traverso G. B. — *Sclerospora graminicola* (Sacc.) Schr., var. *setarica-italica* n. var. (Bull. Soc. Bot. it., 1902, pgg. 168-175, in-8, figg.) Firenze 1902.
- Intorno alle alterazioni di alcune spighe di Granoturco prodotte da microfiti (Il Raccoglitore, 1903, pgg. 22-24, fig.) Padova 1903.
- Diagnoses micromycetum novorum italicorum (Ann. Mycol., I, pgg. 228-231, in-8) Berlin 1903.
- Elenco bibliografico della micologia italiana (118 pgg., in-8) Rocca S. Casciano 1903.
- Micromiceti della provincia di Modena (Malp., XVII, pgg. 163-228, in-8, figg.) Genova 1903.
- Primo elenco di micromiceti di Valtellina (Annal. Mycol. I, pgg. 297-323, in-8, figg.) Berlin 1903.
- I funghi mangerecci della provincia di Padova (Il Raccoglitore, 1904; 100 pgg., in-8 picc., figg.) Padova 1904.
- Eine neue *Cercospora*-Art: *C. compacta* Trav. (Hedw. XLIII, pg. 422-424, in-8, fig.) Dresden 1904.
- Gli avvelenamenti per funghi (Il Secolo, 3-4 nov. 1904) Milano 1904.
- Traverso G. B. et Cugini G. — Cfr. Cugini.
- Traverso G. B. et D'Ippolito G. — Cfr. D'Ippolito.
- Traverso G. B. et Milesi M. — Cfr. Milesi.
- Traverso G. B. et Saccardo P. A. — Cfr. Saccardo P. A.
- Trelease W. — Cryptogamic Botany of Alaska. Introduction (Harriman Alaska Expedit., vol. V, pgg. 1-9, in-8 gr.) Washington 1904.
- Aberrant veil remnants in some edible Agarics (Rep. Mo. Bot. Gard., vol. XV, pgg. 83-85, in-8, 10 pl.) St. Louis 1904.
- Trevisan V. — Prime linee di introduzione allo studio dei batteri italiani (Rendic. Ist. Lomb., XII, pgg. 13-21 et 133-151, in-8) Milano 1879.
- Il bacillo del colera indiano è causa, non effetto, della malattia (Corriere della Sera, 12-13 agosto 1884) Milano 1884.
- Trotter A. — I micromiceti delle galle (Atti Ist. Ven., t. LIX, pgg. 715-736, in-8, figg.) Venezia 1900.
- Sullo stato ecidiosporico della *Puccinia Umbilici* Guep. (Bull. Soc. Bot. it. 1901, 2 pgg., in-8) Firenze 1901.
- Manipolo di miceti del Friuli (*ibid.*, 1901, pgg. 29-34, in-8) Firenze 1901.
- Intorno ai tubercoli radicali di *Datisca cannabina* L. - Nota preliminare (*ibid.*, 1902, pgg. 50-52, in-8) Firenze 1902.
- Note di Patologia vegetale (Giorn. di Viticolt. ed Enol. di Avellino, XI et XII) Avellino 1903-1904.
- Relazione intorno ai principali casi patologici ecc. dal maggio 1902 all'ottobre 1903 (*ibid.*, vol. XII, 4 pgg., in-8) Avellino 1904.
- Intorno all'*Uromyces giganteus* Speg. (Annal. mycol. II, 2 pgg., in-8) Berlin 1904.
- *Notulae mycologicae* (*ibid.*, pgg. 533-538, in-8, figg.) Berlin 1904.
- La « brunissure » della Vite non sarebbe una malattia parassitaria (Giorn. Vitic. ed Enol. Avellino, XII, 3 pgg., in-8) Avellino 1904.
- I progressi della civiltà e la patologia vegetale (*ibid.*, XIII, 6 pgg., in-8) Avellino 1905.
- Osservazioni e ricerche sulla « mal-sania » del Nocciuolo in provincia di Avellino e sui mezzi atti a combatterla (Redia, vol. II, pgg. 37-37, in-8, figg.) Firenze 1905.
- *Ascochyta Salicorniae* P. Magn. var. *Salicorniae-patulae* Trotter (Annal.

- Mycol., III, pag. 80, in-8) Berlin 1905.
- Trow A. H. — Observations on the biology and cytology of *Pythium ultimum* n. sp. (Ann. of Botany, XV, pgg. 269-311, in-8, 2 pl.) London 1901.
- Tryon H. — Preventive treatment in plant-disease. Hybridisation and inoculation (The Queensland Agric. Journ., vol. II, 6 pgg., in-8) Brisbane 1898.
- Strawberry leaf blight: *Sphaerella Fragariae* (*ibid.*, III, 10 pgg., in-8, 1 pl.) Brisbane 1898.
- Tubeuf K. (von) — Pflanzenkrankheiten durch Kryptogame parasiten verursacht. Berlin 1895.
- Tuckerman Ed. — Lichens or fungi? (Bull. Torr. Bot. Club., VIII, pgg. 66-67, in-8) New York 1881.
- Tulasne L. R. — Fungi nonnulli hypogaei, novi vel minus cogniti (Giorn. Bot. Ital., t. I, pgg. 55-63, in-8) Firenze 1844.
- Turconi M. — Sopra una nuova specie di *Cyondrosporium* parassita dell'*Ilex furcata* Lindl. (Atti Istit. Bot. Pavia, IX, 3 pgg., in-8) Milano 1904.
- Un nuovo fungo parassita sulla *Chequirilla*, pianta messicana (*ibid.*, vol. X, 4 pgg., in-8) Milano 1904.
- Ugolini U. — Elenco descrittivo dei funghi mangerecci della provincia di Brescia (Giorn. delle Istituz. Agr. Bresciane, an. I, 11 pgg., in-8 gr.) Brescia 1903.
- Underwood L. M. — List of Cryptogams at present known to inhabit the state of Indiana (Proceed. Indiana Acad. of Sc., 1893, pgg. 30-67, in-8) Indianapolis 1894.
- On the distribution of the north-american Helvellales (Minnesota Botan. Studies, 1896, pgg. 483-500, in-8) Minneapolis 1896.
- Underwood L. M. — Some new fungi, chiefly from Alabama (Bull. Torr. Bot. Club, vol. XXIV, pgg. 81-86, in-8) New York 1897.
- The Ellis collection of fungi (Jour. of New York Bot. Garden, vol. I, pgg. 33-40, in-8) Lancaster 1900.
- Underwood L. M. et Earle F. S. — A preliminary list of Alabama fungi (Alabama Agric. Exper. Stat., Bull. n. 80, pgg. I-XVII et 113-233, in-8) Montgomery 1897.
- Vallati G. — Censo bibliografico sul recente libro del prof. G. Schiaparelli « Studio comparativo tra le forme organiche naturali e le forme geometriche pure » (Archivio di Psichiatria, vol. XIX, 7 pgg., in-8) Torino 1893.
- Van Bambeke Ch. — Cfr. *Bambeke*.
- Van Delden A. — Cfr. *Delden*.
- Vanha J. J. — Eine neue Blattkrankheit der Rübe: *Microsphaera Betae* n. sp. (Zeitschr. f. Zuckerindustrie in Böhmen, 1902, 10 pgg., in-8 gr., 2 Taf.) Brünn 1902.
- Blattbräune der Kartoffeln (Dürtheckigkeit). (Naturw. Zeitschr. f. Land-u. Forstw., Jahrg. II, Heft 3, 17 pgg., in-8, 6 Taf.) Brünn 1904.
- Verissimo (d'Almeida) J. — Cfr. *D'Almeida*.
- Vestergrén T. — Bidrag till kännedom om Gotlands Svampflora (Bih. k. Svenska Vet.-Akad. Handl., Bd. XXII, 29 pgg., in-8, 1 Taf.) Stockholm, 1896.
- Anteckningar till Sveriges Ascomycet-flora (Botaniska Notiser, 1897, pgg. 255-272, in-8) Lund 1897.
- *Sphaeropsidaceae et Melanconieae novae in Suecia collectae* (K. Vetensk. Akad. Förhandl. 1897, pgg. 35-46, in-8) Stockholm 1897.

- Vestergren T.** — Diagnoses micromycetum præmissæ (Jahreskatalog pro 1897 der Wiener Kryptog.-Tauschanstalt) Wien 1897.
- Micromycetes rariores selecti, præcipue scandinavici (Botan. Notiser, 1899, 4 pgg., in-8) Lund 1899.
 - Ueber *Hymenella Arundinis* Fr., eine Tubercularice mit endogoner Conidienbildung. etc. (K. Vet.-Akad. Förhandl. 1899, pgg. 837-845, in-8, figg.) Stockholm 1899.
 - Verzeichniss, nebst Diagnosen und kritische Bemerkungen zu meinem Exsiccatenwerke «Micromycetes rariores selecti» (Bötan. Notiser 1899-1902) Lund 1899-1902:
 - I-III (1899, pgg. 153-165, in-8) Lund 1899.
 - IV-VI (1899, pgg. 166-173, in-8) Lund 1899.
 - VII-X (1900, pgg. 27-44, in-8, fig.) Lund 1900.
 - XI-XVII (1902, pgg. 113-179, in-8) Lund 1902.
 - Eine arktisch-alpine *Rhabdospora* (K. Svenska Vet.-Akad. Handl., Bd. XXVI, 23 pgg., in-8, 2 Taf.) Stockholm 1900.
 - Zur Pilzflora der Insel Oesel (Hedw. XLII, pgg. 76-117, in-8, 1 Taf.) Dresden 1903.
- Viala P.** — Les maladies de la Vigne. III edit. Paris 1893.
- Viala P. et Mangin L.** — Cfr. *Mangin*.
- Vido L.** — Repertorium mycologicæ venetæ (Michelia I, pgg. 553-619, in-8) Patavii 1879.
- Vittadini C.** — Tentamen mycologicum seu Amanitarum illustratio (34 pgg., in-4, 1 tab.) Mediolani 1826.
- Vogolino P.** — *Entoloma nidorosum* (Fr.) Quél. e *Cortinarius infractus* (Pers.) Fr. in Italia (Malp., II, pag. 171, in-8) Messina 1833.
- Il Carbone del Granoturco (8 pgg., in-8, 1 tav.) Casalmongera 1891.

- Vogolino P.** — La muffa delle frutta: *Monilia fructigena* Pers. e *M. cinerea* Bon. (8 pgg., in-8, 1 tav.) Casalmongera 1891.
- Il Carbone delle spighe (12 pgg., in-8, 1 tav.) Casalmongera 1891.
 - La bolla delle foglie: *Exoascus deformans* Fuck. (8 pgg., in-8, 1 tav.) Casalmongera 1891.
 - Nota micologica (Bull. Soc. Bot. it. 1891, pg. 350-353, in-8) Firenze 1891.
 - Sopra alcuni casi teratologici di Agaricini (*ibid.*, pgg. 167-170, in-8) Firenze 1891.
 - La rogna dell'Olivo: *Bacillus Oleæ* (Aro.) Trev. (12 pgg., in-8, 1 tav.) Torino 1892.
 - La ruggine del Frumento: *Puccinia graminis* Pers. (Il Coltivatore, an. XXXVII, 11 pgg., in-8, 1 tav.) Casalmongera 1892.
 - La peronospora delle Patate e dei Pomodoro: *Phytophthora infestans* (*ibid.*, 14 pgg. in-8, 1 tav.) Casalmongera 1892.
 - La ruggine perforatrice delle foglie: *Phyllosticta prunicola* e l'antracnosi dei Fagioli: *Colletotrichum Lindemuthianum* (*ibid.*, 12 pgg., in-8, 1 tav.) Casalmongera 1892.
 - Osservazioni sopra alcuni casi teratologici di Agaricini (Bull. Soc. Bot. ital 1892, pgg. 442-444, in-8) Firenze 1892.
 - Appunti sulla flora micologica della Sardegna (*ibid.*, 1893, pgg. 463-476, in-8) Firenze 1893.
 - Alcune osservazioni sull'imbrunimento delle foglie della Vite (Il Coltivatore, an. XXXIX, 7 pgg., in-8, fig.) Casalmongera 1894.
 - Antracnosi della Vite: *Gloeosporium ampelinum* e Clorosi delle Viti americane (*ibid.*, 20 pgg., in-8, 1 tav.) Casalmongera 1894.
 - La ruggine coronata: *Puccinia coronata* e la ruggine striata del-

l'Orzo: *P. Rubigo-cera* (*ibid.*, XL, 16 pgg., in-8, 1 tav.) Casalmongera 1894.

Vogolino P. — La lebbra del Susino: *Eoascus Pruni* ed il seccume o nebbia del Pisello e del Fagiolo: *Ascochyta Pisi* (*ibid.*, 9 pgg., in-8, 1 tav.) Casalmongera 1894.

— Ricerche intorno alle macchie nere delle foglie del Gelso ed alla flaccidezza del baco da seta (*ibid.*, 13 pgg., in-8, figg.) Casalmongera 1894.

— Osservazioni micologiche: Notizie intorno ad alcuni funghi raccolti nei dintorni di Busalla e Ronco (Bull. Soc. Bot. ital. 1894, pgg. 115-122, in-8) Firenze 1894.

— Ricerche intorno alla formazione di alcune mostruosità degli Agaricini (Atti Accad. Scienze di Torino, vol. XXX, 15 pgg., in-8, 1 tav.) Torino 1894.

— La ticchiolatura o brusone del Melo: *Fusicladium dendriticum* e la ruggine delle Fragole: *Sphaerella Fragariae* (Il Coltivatore, ann. LXI, 18 pgg., in-8, 1 tav.) Casalmongera 1895.

— Morfologia e sviluppo di un fungo Agaricino: *Tricholoma terreum* Schaef. (N. Giorn. Bot. ital., n. ser., vol. II, pgg. 272-287, in-8, 2 tav.) Firenze 1895.

— Ricerche intorno all'azione delle lumache e dei rospi nello sviluppo di alcuni agaricini (N. Giorn. Bot. ital., n. ser., vol. II, pgg. 181-185, in-8) Firenze 1895.

— Ricerche intorno alla struttura della *Clitocybe odora* Bull. (Atti Accad. Scienze Torino, vol. XXX, 16 pgg., in-8, 1 tav.) Torino 1895.

— Sullo sviluppo della *Stropharia merdaria* (*ibid.*, vol. XXXI, 14 pgg., in-8, 1 tav.) Torino 1896.

— Prima contribuzione allo studio

della flora micologica del Canton Ticino (Bull. Soc. Bot. ital., 1896, pgg. 34-43, in-8) Firenze 1896.

Vogolino P. — Ricerche intorno ad una malattia batterica dei Trifogli (Annali Accad. Agr. Torino, XXXIX, 14 pgg., in-8, 1 tav.) Torino 1897.

— Ricerche intorno alla malattia del Riso conosciuta col nome di « brusone ». Nota preventiva (*ibid.*, vol. XL, 7 pgg., in-8) Torino 1897.

— Di una nuova malattia dell' *Azalea indica* (Malp., vol. XIII, pgg. 73-86, in-8, 2 tav.) Genova 1899.

— La lotta per l'esistenza nel genere *Boletus* (Bull. Soc. Bot. ital., 1899, pgg. 174-177, in-8) Firenze 1899.

— La *Peronospora* delle Barbabietole (*P. Schachtii* Fuck.) nelle regioni italiane (Annali Accad. Agr. Torino, vol. XLII; 11 pgg., in-8, 1 tav.) Torino 1899.

— Intorno ad una malattia batterica delle Fragole (*ibid.*, 11 pgg., in-8, 1 tav.) Torino 1900.

— Ricerche sullo sviluppo della *Septoria Petroselinii* Desm. sul Sedano (*ibid.*, 16 pgg., in-8, 2 tav.) Torino 1901.

— Sopra una malattia dei Crisantemi coltivati (Malp. XV, pgg. 329-341, in-8, 1 tav.) Genova 1901.

— Il Carbone del Garofano: *Heterosporium echinulatum* (Ann. Acad. Agric. Torino, XLV, 13 pgg., in-8, 1 tav.) Torino 1902.

— Le malattie crittogamiche di alcune piante coltivate comparse nella primavera del 1902 nel circondario di Torino (*ibid.*, XLIV, 12 pgg., in-8) Torino 1902.

— Le macchie gialle del Garofano: *Septoria Dianthi* Desm. (Le Staz. sper. agr. ital., XXXV, pgg. 17-34; in-8, 1 tav.) Modena 1902.

— *Polydesmus exilis* Kühn ed *Alternaria Brassicae* (Berk.) Sacc.

- (Malp., XVI, pgg. 333-340, in-8, 1 tav.) Genova 1902.
- Vogolino P.** — Sul Brusone del Riso (L'Economia rurale 1902, 48 pgg., in-8, figg.) Torino 1902.
- Sulla batteriosi delle Lattughe (Annali Accad. Agricolt. Torino, XLVI, 11 pgg., in-8, figg.) Torino 1903.
- Sul parassitismo e lo sviluppo dello *Sclerotium cepivorum* Berk. nell'*Allium sativum* (Le Staz. sper. agr. ital., XXXVI, pgg. 89-106, in-8, figg., 2 tav.) Modena 1903.
- Patologia vegetale (Nuova Enciclopedia agraria italiana, parte I) Torino 1903-1905.
- Volkart A.** — Pflanzenschutz (Schweiz. Samenunters. u. Versuchsanstalt in Zurich, Jahrg. XXVI, 3 pgg., in-8, figg.) Zurich 1903.
- *Taphrina rhaetica* n. sp. und *Myco-sphaerella Aronici* (Fuck.) (Ber. Deutsch. Bot. Gesell., XXI, pgg. 477-481, in-8, 1 Taf.) Berlin 1903.
- Fungi helvetici ex herbario Taveliano (Ber. Schweizer. Bot. Gesell., XIII, 15 pgg., in-8) Bern 1903.
- Von Darbishire O.** — Cfr. *Darbishire*.
- Voss W.** — Mykologische Notiz (Oesterr. Bot. Zeitschr. 1880, 2 pgg., in-8) Wien 1880.
- Weitere Mittheilungen über die Ausbreitung der *Peronospora viticola* (*ibid.*, 1 pag. in-8) Wien 1880.
- *Geoglossum sphagnophilum* Ehrh. (*ibid.*, 1882, 2 pgg., in-8) Wien 1882.
- Zwei neue Ascomyceten (*ibid.*, 2 pgg., in-8) Wien 1882.
- Voss W. et Thümen F. (von)** — Cfr. *Thümen*.
- Vuillemin P.** — Sur une maladie des Cerisiers et des Pruniers en Lorraine (Journ. de Bot. 1888, pgg. 315-320, in-8, figg.) Paris 1888.
- Les Puccinies des *Thesium* (Bull. Soc. Mycol. France, X, 24 pgg., in-8) Lons-le-Saunier 1894.
- Vuillemin P.** — Structure et affinités des *Microsporium* (*ibid.*, XI, 11 pgg., in-8) Lons-le-Saunier 1895.
- Les broussins des Myrtacées: *Ustilago Vriesiana* (Annal. Soc. Agron. franç. et étrang., t. II, 40 pgg., in-8, 3 pl.) Nancy 1895.
- Les Hypostomacées, nouvelle famille de champignons parasites (Bull. Soc. Sc. de Nancy, 1896, 55 pgg., in-8, 2 pl.) Nancy 1896.
- Quelques champignons arboricoles nouveaux ou peu connus (Bull. Soc. Mycol. Fr., XII, 14 pgg., in-8) Lons-le-Saunier 1896.
- Ueber die chinesischen Hefen und über die zuckerbildenden Pilze (Centralbl. Bakt. etc., Bd. VIII, pgg. 409-412, in-8) Jena 1902.
- Les Céphalidées, section physiologique de la famille des Mucorinées (Bull. mens. Soc. Sc. de Nancy, 1902, 64 pgg., in-8, 4 pl.) Nancy 1902.
- Le *Syncephalis adunca* sp. n. et la série des *Cornutæ* (Ann. Mycol. I, 8 pgg., in-8, 1 pl.) Berlin 1903.
- Le *Spinellus chalybeus* (Dozy et Molkenboer) Vuill. et la série des Spinellées (*ibid.*, II, pgg. 61-69, in-8, 1 pl.) Berlin 1904.
- Recherches morphologiques et morphogéniques sur la membrane des zygosporées (Bull. Soc. Sc. Nancy, 1904, 32 pgg., in-8, 4 pl.) Nancy 1904.
- Le *Spinalia radians* n. g. et sp. et la série des Dispirées (Bull. Soc. Mycol. Fr., t. XX, 8 pgg., in-8, 1 pl.) Paris 1904.
- Wagner G. et Lagerheim G.** — Cfr. *Lagerheim*.
- Wakker J. H. et Went F. A. F. C.** — Cfr. *Went*.

- Ward H. Marshal** — On the sexuality of the fungi (Quart. Journ. Micr. Soc., 1884, pgg. 23-63, in-8) London 1884.
- The morphology and physiology of an aquatic Myxomycete (*ibid.*, pgg. 64-86, 2 pl.) London 1884.
- The ginger-beer plant, and the organismus composing it: a contribution to the study of fermentation-yeast and bacteria (Philos. Trans. roy. Soc. London, ser. B, vol. CLXXXIII, pgg. 125-197, in-4, 6 pl.) London 1892.
- The action of light on Bacteria (*ibid.*, CLXXXV, pgg. 961-983, in-4, figg., 1 pl.) London 1895.
- On the biology of *Bacillus ramosus* (Fraenkel) a Schizomycete of the river thames (Proceed. roy. Soc. London, vol. LVIII, 204 pgg., in-8, figg.) London 1895.
- *Onygena equina* Willd., a horn-destroying fungus (Phil. Trans. roy. Soc. London, ser. B, vol. CXCI, pgg. 269-291, in-4, 4 pl.) London 1899.
- Further observations on the brown rust of the Bromes: *Puccinia dispersa* Erikss. and its adaptive parasitism (Ann. Mycol., I, pgg. 132-151, in-8) Berlin 1903.
- On the histology of *Uredo dispersa* Erikss. and the mycoplasma' hypothesis (Proceed. roy. Soc. London, vol. LXXI, pgg. 353-354, in-8) London 1903.
- Waters L. L.** — *Erysipheae* of Riley county, Kansas (Trans. Kansas Acad. of Sc. 1893-1894, pgg. 200-204, in-8, 2 pl.) Topeka, 1894.
- Webber H. J.** — The «white fly» and «sooty mould» (Proceed. Ann. Meet. Florida St. Hortie. Soc., 1894) Lake City 1894.
- Treatment for sooty mould of the Orange (Yearb. U. St. Dep. Agr. for 1894 (?), 4 pgg., in-8) Washington 1895.
- Webber H. J.** — Fertilisation of the soil as affecting the Orange in health and disease (*ibid.*, 1894, pgg. 193-202, in-8, figg.) Washington 1895.
- Diseases and insects of Citrus (Proceed. 9 ann. Meet. Florida St. Hortie. Soc., 1896, pgg. 70-76, in-8) Lake City 1896.
- Notes on Pineapples and their diseases (*ibid.*, pgg. 92-95, in-8) Lake City 1896.
- Sooty mould of the Orange and its treatment (U. St. Dep. of Agr., Divis. of veg. Pathol., Bull. n. 13, 34 pgg., in-8, 5 pl.) Washington 1897.
- Webber H. J. et Swingle W. T.** — Cfr. *Swingle*.
- Wedl C.** — Ueber einen im Zahnbein und Knochen keimenden Pilz (Sitzungsb. k. k. Akad., naturw. Cl., Bd. L, pgg. 171-193, in-8, 1 Taf.) Wien 1864.
- Wegelin H.** — Beitrag zur Pyrenomycetenflora der Schweiz. I. II (Mitteil. Thurg. naturforsch. Gesell., Hft. XI et XII, 26 pgg., in-8, 4 Taf.) Frauenfeld 1894-95.
- Wehmer C.** — Ueber Citronensäure-Gährung (Sitzungsb. k. preuss. Akad. d. Wissensch. zu Berlin, Jahrg. XXIX, 5 pgg., in-8) Berlin 1893.
- Zur Morphologie und Entwicklungsgeschichte des *Penicillium luteum* Zuk., eines überaus häufigen grünen Schimmelpilzes (Ber. deutsch. botan. Gesellsch., Bd. XI, pgg. 499-516, in-8, 1 Taf.) Berlin 1893.
- Beiträge zur Kenntniss einheimischer Pilze. Jena 1893-95.
- Eine neue Sklerotien-bildende *Penicillium*-species: *P. italicum* n. sp.

- (Hedw., Bd. XXXIII, pgg. 211-214, in-8) Dresden 1894.
- Wehmer C.** — Zur frage nach dem Werth der einzelnen Mineralsalze für Pilze (Ber. deutsch. bot. Gesell., Bd. XIII, pgg. 257-265, in-8) Berlin 1895.
- Die Bedeutung des oxalsuren Kalles in Stoffwechsel (Monatschr. f. Kakteenkunde, 1895, 11 pgg., in-8) Neudamm 1895.
- Sakébrauerei und Pilzverzuckerung (Centralbl. Bakter. etc., 1895, pgg. 565-581, in-8) Jena 1895.
- *Aspergillus Oryzae*, der Pilz der japanischen Saké-brauerei (*ibid.*, pgg. 150-160, 209-220, in-8, 1 Taf.) Jena 1895.
- Die Pilzgattung *Aspergillus* in morphologischer, physiologischer und systematischer Beziehung unter besonderer Berücksichtigung der mitteleuropäischen Species (Mém. Soc. Phys. et Hist. Nat. Genève, t. XXXIII, pgg. 1-157, in-4, 5 Taf.) Genève 1901.
- Der *Mucor* der Hanfrötte, *M. hiemalis* n. sp. (Ann. Mycol. I, pgg. 37-41, in-8, figg.) Berlin 1903.
- Der *Aspergillus* des Tokelau (Centralbl. f. Bakter. etc., Bd. XXV, pgg. 140-146, in-8, figg.) Jena 1903.
- Weinmann C. A.** — Hymeno- et Gasteromycetes hucusque in imperio rossico observatos. Petropoli 1886.
- Weitenweber W. R.** — Denkschrift über A. J. Corda's Leben und literarisches Werken. Prag. 1852.
- Went F. A. F. C.** — De Ananasziekte van het suikerriet (Archief Java-Suikerindustrie, 1893, 8 pgg. in-8, 1 pl.) Soerabaia 1893.
- De serehziekte (*ibid.*, 48 pgg., in-8, 1 pl.) Soerabaia 1893.
- Het rood snot (*ibid.*, 18 pgg., in-8, 2 pl.) Soerabaia 1893.
- *Monascus purpureus*, le champignon de l'Ang-Quac, une nouvelle Thélébolée (Ann. Sc. Nat. — Bot., 8^e sér., t. I, 18 pgg., in-8, 2 pl.) Paris 1895.
- Went F. A. F. C. et Geerligs H. C. P.** — Over suiker-en alcoholvorming door organismen in verband met de verwerking der naprodueten in de zietsuikerfabrieken (Arch. Java Suikerind., 1894, 21 pgg., in-8, 1 pl.) Soerabaia 1894.
- et — Beobachtungen über die Heferarten und Zuckerbildenden Pilze der Arackfabrikation (Verh. k. Akad. van Wetensch. Amsterdam, 1895, 31 pgg., in-8, 4 pl.) Amsterdam 1895.
- Went F. A. F. C. et Vakker J. H.** — Overzicht van de ziekten van het suikerriet op Java. 1 Deel (Archief Java-Suikerind., 1896, 11 pgg., in-8, 1 Taf.) Soerabaia 1896.
- et — De ziekten van het suikerriet op Java. Leiden 1898.
- Westendorp G. D.** — Les Cryptogames classées d'après leurs stations naturelles. Gand 1854-1865.
- Sur une excursion cryptogamique a Blankenberghe et sur quelques cryptogames nouvelles ou inédites pour la flore belge (Bull. Soc. roy. Bot. Belgique, t. V, 16 pgg., in-8, 1 pl.) Bruxelles 1866.
- Wharton H. T.** — The uses of fungi (pgg. 190-195, in-8) s. l. 1885.
- Whits V. S.** — The *Tylostomaceae* of North America (Bull. Torr. Bot. Club, XXVIII, pgg. 421-444, in-8, 10 pl.) New York 1901.
- The *Nidulariaceae* of North America (*ibid.*, XXIX, pgg. 251-280, in-8, 5 pl.) New York 1902.
- Whitehead Ch.** — Report on injurious insects and fungi (Board of Agr., Ann. Rep. Intell. Depart. on injur. insects and fungi, 1890, 31 pgg., in-8, figg. (fungi p. 23)) London 1890.

- Wichmann H. — Die Hefereincultur und die Bacterienfrage (Mitth. Oesterr. Versuchstat. f. Brauerei u. Mälzerei in Wien, 1888, pgg. 64-70, in-8) Wien 1888.
- Willcox E. M. — A rhizomorphic root-rot of fruit trees (Oklahoma Agr. Exp. Stat., Bull. n. 49, 32 pgg., in-8, 11 pl.) Stillwater 1901.
- A leaf-curl disease of Oaks (Alabama Agr. Exp. Stat., Bull. 126, pgg. 171-187, in-8, figg. et 1 pl.) Montgomery Ala. 1903.
- Willkomm M. — Die mikroskopischen Feinde des Waldes (228 pgg., in-8, 12 Taf.) Dresden 1866-67.
- Wildeman E. (de) — Cfr. *De Wildeman*.
- Willey H. — Myco-lichens (Bull. Torr. Bot. Club, IX, pgg. 6-8, in-8) New York 1882.
- Winogradsky S. — *Clostridium Pastorianum*, seine Morphologie und seine Eigenschaften als Buttersäureferment (Centralbl. Bakter., etc., II Abth., Bd. IX, pgg. 43-54, 107-112, figg.) Jena 1902.
- Winter G. — Einige vorläufige Mittheilungen über die Gattung *Sordaria* (Bot. Zeitung, Jahrg. XXXI, n. 29-31) Leipzig 1873.
- *Puccinia arundinacea* Hedw. und ihr *Ecidium* (Sitzungsb. naturf. Gesell. Leipzig, 1875, pgg. 73-76, in-8) Leipzig 1875.
- Exotische Pilze IV (Hedw. 1887, 12 pgg., in-8) Dresden 1887.
- Wize C. — *Pseudomonas ucrainicus*, ein krankheitserregendes Bacterium der Larve des Rübenrüsselkäfer (Bull. Acad. Sc. Cracovie, Cl. Sc., 1904, pgg. 211-222, in-8, 1 pl.) Cracovie 1904.
- Die durch Pilze hervorgerufenen Krankheiten des Rübenrüsselkäfer (*Cleonus punctiventris*) mit besonderer Berücksichtigung neuer Arten (*ibid.*, 1904, pgg. 713-727, in-8, figg., 1 pl.) Cracovie 1905.
- Wolff R. — Beitrag zur Kenntniss der Schmarotzerpilze: *Erysiphe graminis* und *E. communis* (37 pgg., in-8, 2 Taf.) Berlin 1875.
- Woods A. F. — Observations on the mosaic disease of Tobacco (U. St. Dep. of Agric., Bur. of plant industry, Bull. n. 18, 24 pgg., in-8, 6 pl.) Washington 1902.
- Woods A. F. et Clements F. E. — Report on collections made in 1892 (Botan. Survey of Nebraska, II, 46 pgg., in-8) Lincoln 1893.
- Woronin M. — Bemerkung zu Ludwig's *Sclerotinia Aucupariae* (Ber. deutsch. botan. Gesell., IX, 2 pgg., in-8) Berlin 1891.
- *Sclerotinia heteroica* Wor. et Naw. (*ibid.*, XII, pgg. 187-188, in-8) Berlin 1894.
- Die Sclerotienkrankheit der gemeinen Traubenkirsche und der Eberesche: *Sclerotinia Padi* und *S. Aucupariae* (Mém. Acad. imp. d. Sc. de St. Pétersbourg, VIII sér., cl. phys-math. vol. II, 27 pgg., in-4, 5 Taf.) St. Pétersbourg 1895.
- *Monilia cinerea* Bon. und *M. fructigena* Pers. (Botan. Centralbl., LXXVI, 5 pgg., in-8) Cassel 1896.
- Ueber *Sclerotinia cinerea* und *Scl. fructigena* (Mém. Acad. Sc. St. Pétersbourg, VIII sér., cl. phys-math. vol. X, 38 pgg., in-4, 6 Taf.) St. Pétersbourg 1900.
- Woronin M. et De Bary A. — Beitrag zur Kenntniss der Ustilagineen (Abh. Senkenb. naturf. Gesellsch., Bd. XII, 35 pgg., in-4, 4 Taf.) Frankfurt a. M. 1882.
- Woronin M. et Nawaschin S. — *Sclerotinia heteroica* (Zeitschr. f. Pflanzenkr., VI, 21 pgg., in-8, 2 Taf.) Stuttgart 1896.

- Zannetti A.** — Le crittogame utili e la loro cultura (Nuova Antol. 1871, 21 pgg., in-8) Firenze 1871.
- Zimmermann A.** — Ueber einige an tropischen Kulturpflanzen beobachtete Pilze. I (Centralbl. Bakt. etc., Bd. VII, pgg. 101-106 et 139-147, in-8, figg.) Jena 1901.
- Over eene Wortelschimmel van *Coffea arabica* (Tijdschr. v. het Teysmannia, Deel XII, pgg. 305-309, in-8, figg.) Batavia 1901.
- Die thierischen und pflanzlichen Feinde der Kautschuk- und Gutta-percha-pflanzen (Bull. Inst. Bot. Buitenzorg, X, 27 pgg., in-8) Buitenzorg 1901.
- Untersuchungen über tropische Pflanzenkrankheiten I (Ber. Landw. Forstw. in Deutsch-Ostafrika, Bd. II, pgg. 11-36, in-8, 4 Taf.) Heidelberg 1904.
- Einige pathologische en physiologische Warnemingen over Koffie (Mededeel. uit 'Slands Plantentuin, LXVII, 105 pgg., in-8, 4 pl.) Batavia 1904.
- Zolfanelli C.** — Lettera nursina al prof Aristide Conti (Supplem. all' *Appennino*, an. V, n. 22, 16 pgg., in-8) Camerino 1880.
- Zopf W.** — Uebersicht der auf Flechten schmarotzenden Pilze (Hedw., XXXV, pgg. 312-366, in-8) Dresden 1896.
- Untersuchungen über die durch parasitische Pilze hervorgerufenen Krankheiten der Flechten (Nova Acta Abh. k. Leop.-Carol. deutsch. Akad. d. Naturf., Bd. LXX, pgg. 99-192 et 243-288, in-4, figg., 2 Taf.) Halle 1897-98.
- Zukai H.** — Mykologische Mittheilungen (Oesterr. Botan. Zeitschr., 1898, 24 pgg., in-8, 2 Taf.) Wien 1898.
- Ueber zwei neue Myxomyceten (*ibid.*, 9 pgg., in-8, 1 Taf.) Wien 1898.
- *Myxobotrys variabilis* Zuk., als Repräsentant einer neuen Myxomyceten-Ordnung (Ber. deutsch. bot. Gesell., Bd. XIV, pgg. 340-347, in-8, 1 Taf.) Berlin 1896.
- Ueber die Myxobacterien (*ibid.*, XV, pgg. 542-552, in-8, 1 Taf.) Berlin 1897.
- Notiz zu meiner Mittheilung über *Myxobotrys variabilis* Zuck. (*ibid.*, XV, pgg. 17-18, in-8) Berlin 1897.



HYMENOMYCETÆ *)

Syll. fung. V p. 3, IX p. 1, XI p. 1, XIV p. 63, XVI p. 1.

Fam. 1. Agaricaceæ Fr.

Sect. 1. Leucosporæ Fr.

AMANITA Pers. — Syll. V, p. 8, IX, p. 1, XI, p. 1, XIV, p. 63.
— De hujus generis et *Amanitopsisidis* speciebus cf. illustrationem
cl. Boudier in Bull. Soc. myc. Fr. 1902, p. 251.

1. **Amanita flavoconia** Atkinson in Journ. of Mycol. 1902, p. 110. —
Sparsa vel gregaria, 6-12 cm. alta; pileo convexo-expanso, plano
vel subumbonato, crasso, luteo-aurantiaco, levi, viscido, verrucis
tenuibus, luteis, floccosis oblecto; lamellis 4-8 mm. latis, utrinque
rotundatis liberis, albis subconfertis, initio serrulatis; sporis obova-
tis. 6-9 \times 4-6, albis; stipite 4-15 mm. crasso, farcto, recto vel
flexuoso, basi incrassatulo, floccoso-squamoso, luteo-citrino, inferne
volva marginato; annulo luteo citrino, membranaceo; volva initio
totum fungum cingente dein hiascenti.

Hab. ad terram in Amer. bor., valde frequens. — *Am. Frostianæ* et *A. muscarie* affinis.

2. **Amanita flavo-rubescens** Atkinson in Journ. of Mycol. 1902, p. 111. —
Sparsa vel gregaria, raro subcæspitosa, 10-14 cm. alta;
pileo convexo-expanso 6-10 cm. lato, levi, margine leniter striato,
verrucis floccosis luteis vestito, centro brunneo, margine luteo-
brunneo, crasso; lamellis oblongo-ellipticis, liberis, albis, non sti-
patis; basidiis clavatis 4-sporis, 40-50 \times 9-11; sporis ovatis, granu-
losis, levibus, 8-10 \times 6-8; stipite 6-12 mm. crasso, æquali, basi bul-

*) Conferenda perspicua Hymenomycetarum expositio cl. N. Patouillard (*Essai taxonomique des Hymén.* 1900), quam *Sylloge* dolet amplecti non posse, ne dispositio jam adhibita in voluminibus nostris præcedentibus nimis subvertatur.

boso, floccoso, superne floccis lutescentibus, inferne floccis rubescentibus vestito; annulo crasso, membranaceo, luteo 3 cm. lato, apicali, lacero; volva lutescente, lacera.

Hab. ad terram, Ithaca, Amer. bor. (C. H. KAUFFMANN). — *A. rubescenti* affinis.

3. **Amanita multisquamosa** Peck Rep. of the State Bot. 1899, p. 840, 3 tab. B, fig. 1-7. — Pileo convexo, dein planiusculo, 5-10 cm. lat. margine substriatulo, verrucis numerosis, angularibus, rectis persistentibus vestito, albido, interdum centro brunneo; carne albida; lamellis stipatis, liberis, albis; stipite aequali 4.5-10 cm. longo, 6-12 mm. cr., glabro, pleno vel cavo, basi bulboso, albo, annulo albo, persistenti, volva plus minusve marginata; sporis subglobosis vel late ellipticis 7.5-10 \times 6-7, 5.

Hab. ad terram, in silvis, Albany, Amer. bor.

4. **Amanita Frostiana** Peck — Syll. V, p. 14. — var. **pallidipes** Peck 4 Rep. of the State Bot. 1899, p. 855. — Pileo pallide luteolo; stipite annuloque albidis; verrucis molliusculis et flocculosis, numerosis, persistentibus, interdum paucis vel nullis.

Hab. ad terram in America boreali.

5. **Amanita grisea** Masee et Rodw. in Kew Bull. 1901, p. 156. — 5 Pileo carnoso e convexo depresso, levi, glabro, griseo-brunneo 3-5 cm. lato; lamellis latis, ventricosis, subdistantibus, ex albido pallidis; sporis globosis, levibus, 9-10 μ . diam.; stipite subaequali, solido, albido, 4-5 cm. longo, 1 cm. crasso; volva libera, persistente; annulo membranaceo.

Hab. ad terram in Tasmania (Rodway).

6. **Amanita phalloides** Fr. — Syll. V, p. 9. — var. **striatula** Peck in 6 Rep. of the State Botanist 1901, pag. 961. — Pileo 2.5-5 cm. crasso, subplano, margine leviter striato, albo; stipite 7.5-12.5 cm. longo, 4-6 mm. crasso, basi parce incrassato, tenui, basi volva lacera cincto; cetera ut in typo.

Hab. ad terram, Bolton Amer. bor.

AMANITOPSIS Roze — Syll. V p. 20, IX p. 2, XVI p. 64.

1. **Amanitopsis albocreata** Atkinson in Journ. of Mycol. 1902, p. 111. 7 — Alta 10-13 cm.; pileo convexo-expanso, viscido albo, centro pallide luteo vel toto luteo, margine minute striato tuberculatoque verrucis vestito, 5-8 cm. lato; carne alba; lamellis antice rotundatis, postice angustatis 3-6 mm. latis, liberis vel subadnatis, margine floccosis; basidiis 30-45 \times 7-10, 4-sporis; sporis globosis, albis,

levibus, primum granulosis, maturitate vacuolo lato donatis; stipite cylindraceo, albo, minute floccoso, cavo, basi bulboso, 6-12 mm. crasso; volva interdum levissima, ocreata.

Hab. in silvis, Ithaca N. Y., Cascadilla, Caynga Lake, Beebe Lake, Amer. bor. — Ab *A. nivali* Grev. volva albocreata differt.

2. *Amanitopsis volvata* (Peck) Sacc. Syll. V, p. 23. — var. *elongata* 8
Peck Rep. of the State Bot. 1899, p. 856. — Pileo glabro, viscidulo, albo, margine striatulo; stipite longo, recto vel curvato, superne farinoso, inferne floccoso-squamoso, bulbo profunde immerso.

Hab. inter acus Coniferarum, ad terram, Claryville, Amer. borealis.

3. *Amanitopsis vaginata* (Bull.) Roze — Syll. V, p. 21. — var. *crassivolvata* Peck Bull. Torr. bot. Cl. 1902, p. 562. — A typo differt statura majore, pileo 7-10 cm. lat., stipite 15-20 cm. longo, 2 cm. cr., præcipue vero volva multo crassiore poculiformi.

Hab. in uliginosis. Mt Desert Amer. bor. — Pileus cremeo-flavidus; sporæ globosæ 8-10 μ . diam.

LEPIOTA Fr. — Syll. V p. 27, IX p. 3, XI p. 2, XIV pag. 65, XVI p. 2.

1. *Lepiota rhacodioides* P. Henn. in Engl Bot. Jahrb. 1901, p. 56, 10
Syll. XVI, pag. 1110 (nomen). — Pileo carnosio, campanulato-explanato, obtuse umbonato ad medium squamis membranaceis, brunneolis, latis, sparsis tecto, ad marginem levi, glabro, albido usque ad 20 cm. diametro; stipite cavo, cylindraceo, levi, glabro, albo-brunnescente, 20-30 cm. longo, 2-3 cm. crasso, basi bulboso 3-4 cm. incrassato; annulo mobili crasso; lamellis liberis, confertis, lanceolatis, albidis; sporis ellipsoideis, grosse 1-guttulatis, 12-17 \approx 8-10, episporio flavo-carnescente.

Hab. ad folia putrida, Kamerun Afr.

2. *Lepiota caloceps* Atkinson in Journ. of Mycol. 1902, p. 115. — 11
Gregaria, 6-10 cm. alta; pileo 4-8 cm. lato, ovoideo vel convexo-expanso, margine sæpe incurvo, carnosio, solido, interdum fragili, centro 3-4 mm. crasso, margine tenui, centro late gibboso, brunneo-olivaceo, margine luteolo, rimoso; lamellis brunneo-albis, fragilibus, stipatis, liberis, 3-4 mm. latis, acie erosis; sporis anguste ellipsoideis vel fere oblongis, sæpe basi oblique truncatis, albis, granulosis, levibus, 6-8 \approx 2.5-3; stipite cylindrico, æquali, carnosio, cavo, superne albo, inferne roseo, interdum bulboso, basi mycelio obvoluto; cortina plus minusve sericeo-pilosa.

Hab. in silvis Cornell Heights, Ithaca N. Y. Amer. bor.

3. *Lepiota serenula* Karst. Fungi nov. Loennb. 1904, p. 7 (Finska 12
 Vetensk. Soc.). — Pileo carnosulo, molli, convexo, albo, squamis
 minutis, subconcentricis, obscurioribus, subfuscentibus obsesso, levi,
 circiter 9 cm. lato; stipite cylindrico æquali, glabro albo, bulbo
 magno, marginato, circiter 6 cm. longo; annulo infero membra-
 naceo, fixo; lamellis confertis, in collarium liberum postice con-
 junctis, pallescentibus; sporis ellipsoideis.

Hab. prope Kuopio Sibiriae Aug. 1903 (O. A. F. LÖNNBOHM).

4. *Lepiota nigro-marginata* Massee Eur. Fung. Fl. pag. 10, Trans. 13
 British Mycol. Soc. 1903-1904, pag. 61. — Pileo campanulato-ex-
 panso, subumbonato, squamoso; squamis umbrinis, infra subochra-
 ceis; stipite cavo, sursum attenuato, glabro, ex albo salmonicolore;
 annulo distant, persistente, membranaceo, albo; lamellis antice
 latioribus, albidis, acie atro-umbrina; carne tenui, 5-6 cm. lat.,
 3-4 mm. cr.; sporis

Hab. in graminosis, Scarborough Britanniae (W. G. SMITH).

5. *Lepiota discipes* P. Henn. in Engl. Bot. Jahrb. 1901, p. 56, Syll. 14
 XVI, p. 1110 (nomen). — Pileo carnoso, ex ovoideo campanulato
 dein explanato, umbonato, flavo, squamis brunneolis adpressis ve-
 stito, umbone obscuriori, 5-7 cm. diam; stipite farcto, cylindra-
 ceo, pallido, fibroso, annulo membranaceo albido ornato, 10-18 cm.
 longo, 8-15 mm. crasso, basi clavato, discoideo usque ad 2,5 cm.
 cr.; lamellis liberis, confertis, pallidis; sporis globosis 3,5-4 hyalinis.

Hab. ad truncos emortuos, Kamerun Afr.

6. *Lepiota psalliotoides* P. Henn. in Abhandl. Bot. Ver. Brandenb. 15
 1902, p. 177. — Pileo carnoso, initio ovoideo, dein hemisphærico,
 convexo, levi nec squamoso v. floccoso, pure albo, tactu flavo-
 maculato, margine acuto, levi, rarius tomentello, 3-7 cm. diam.;
 stipite cavo-medullato, cylindræo, deorsum clavato, albo, levi,
 glabro, annulo coriaceo-membranaceo persistente prædito, 3-6 cm.
 alt., 5-12 mm. cr.; lamellis liberis, confertis, 2-4 mm. latis, albis,
 dein roseis, demum fuscescentibus; sporis albo-hyalinis, ovoideis,
 1-2-guttatis, 6-9 × 5-6, siccis rubidis.

Hab. in herbosis post pluvias, majō-sept. in horto botanico
 Dahlem Germaniæ. — Caro alba, sapida, inodora. Nisi sporæ albæ,
 videretur *Annulariæ* species.

7. *Lepiota atro-crocea* W. G. Smith, Trans. British Mycol. Soc. 1903- 16
 1904, pag. 62. — Pileo expanso, leviter depresso, læte aurantio-
 salmonicolori, flocculis purpureo-brunneis v. nigricantibus granu-

losis plus minus consperso; stîpîte cavo, sursum tenuato, auran-
tio-salmoneo, brunneo-salmoneo-squamuloso; annulo fugaci; la-
mellis late adnatis, salmoneo-albis; carne tenui, auran-
tio-salmoneo-brunnea, $4 \approx 3 \approx 0,3$; sporis

Hab. ad terram Clevedon, Somerset Britannîæ. — Affinis *L. granulatæ* et *L. amianthinæ*.

8. *Lepiota Henningsiana* Sacc. et Dom. Sacc. *Lepiota pulveracea* P. 17
Henn. in Engl. Bot. Jahrb. 1901, p. 56. — Syll. XVI, p. 1110
(nomen), nec Peck (1900). — Pileo carnoso, hemisphærico-cam-
panulato, subumbonato, squamuloso, farinaceo albo, margine sub-
striato, 4-7 cm. diam.; stipite fistuloso, tereti, squamuloso, fari-
naceo-albo, superne attenuato, basi incrassato; annulo membrana-
ceo secedente, albo; lamellis liberis, confertis, integris; sporis ovoi-
deo-ellipsoideis, hyalinis, episporio subincarnescente, basi oblique
apiculatis, 7-10 \approx 5-6.

Hab. ad truncos emortuos, Kamerun Afr.

9. *Lepiota Hetieri* Boud. in Bull. Soc. Myc. de France 1902, n. 2, 18
t. 6, f. 1. — 3-6 cm. alta; pileo subcarnoso 1,5-3,5 cm. lato, pri-
mo albo, dein tactu v. ætate leviter rufo-ferruginescente, convexo,
dein applanato, late umbonato, minute pulverulento-granuloso,
margine flocculis appendiculato; stipite albido, infra annulum sæpe
evanescentem flocculoso-fibrilloso et colore ferruginescente satu-
ratiore tincto; lamellis adnato-liberis, albis, rubro-maculatis, po-
stice non annulatim junctis; carne alba plus minusve colore ex-
terno tinctâ, cum stipite non continua; sporis oblongis intus gra-
nuloso-nebulosis, albis 6-7 \approx 2,5-3.

Hab. ad terram, in Jura Gallîæ (FR. HETIER).

10. *Lepiota ochroleuca* Speg. Mycet. argent. ser. I, in An. Soc. Cient. 19
Arg. 1899, p. 262. — Cæspitosa e terra erumpens; pileo primo
subgloboso ochroleuco v. flavescente, minute denseque granuloso
v. squarruloso-pulverulento, centro magis obscuro et sordido, levi,
ambitu pallidiore et laxius pulverulento, margine stipiti adpresso
atque velo connato, dein campanulato-explanato, 30-45 mm. diam.,
ochroleuco non v. obtuse latissimeque umbonato, carnosulo, rigi-
dulo non striato; carne ex albo-flavescente, compactiuscula molli;
lamellis, a stipite valde remotis, utrinque attenuato acutatis, medio
2 mm. latis, pallidioribus, confertis, subaridis; areola ad apicem
stipitis latissima (2 mm. lat.) non marginata; stipite erecto vel
flexuosulo, 50 mm. longo, pileo vix pallidiore, superne 4 mm. cr.,
glabro v. vix pruinusulo, ad tertium superum annulo tenuissime

membranaceo descendente mobili, facillime evanido, flavescente ornato, intus plus minusve late fistuloso, cavitate fibris albo-gossypinis faretæ; sporis albis; odore farinaceo.

Hab. in umbrosis pinguibus hortorum, La Plata Argentine.
— Species non marcescens sed corrugato-arescens. *L. hiatuloidi* Speg. valde affinis, sed magis carnosa et pileo non striato.

11. *Lepiota pulveracea* Peck Rep. of the State Bot. 1900, p. 144, 20
nec Henn. — Pileo hemisphærico dein convexo vel fere plano, sicco pulverulento vel minute granuloso-squamuloso, margine æquali, albido vel pallide brunneo, 2,5 cm. lato; lamellis tenuibus, stipatis, adnatis, luteo-albidis; stipite æquali, cavo, albo, superne pruinoso inferne granuloso vel squamuloso, pileo concolori, 2,5-5 cm. longo, 3-4 mm. crasso; annulo obsoleto; sporis minutis, subellipsoideis vel subglobosis 4×3 .

Hab. in silvis ad arbores dejectas. Floodwood, Amer. bor. — *L. granulose* affinis, sed satis diversa.

12. *Lepiota brunnescens* Peck Bull. Torr. Bot. Cl. 1904, p. 177. — 21
Pileo tenui, convexo, v. subplano, obtuso v. umbonato, albido, cuticula mox fatiscente et granulos v. squamulas brunneolas (excepto centro pilei) formante subinde ad marginem radiatim rimulosa; carne alba, sapore dulci; lamellis confertis, ventricosis, liberis, albis; stipite æquali v. leviter basim versus incrassato, cavo, fibroso, albo, ad medium annulo exiguo sed persistenti prædito; sporis ellipsoideis, $6-8 \times 4-5$.

Hab. in silvis apertis locisque graminosis, prope St. Louis Mo Amer. bor. (N. M. GLATFELTER). — Pileus 2-3 cm. lat; stipes 3-5 cm. long., 2-4 mm. cr. *L. cristata* subaffinis.

13. *Lepiota Johnsonii* Massee Kew Bull. 1901, p. 161. — Pileo sub- 22
carnoso, e convexo expanso, flocculoso-squamuloso, lateritio, squamulis obscurioribus, 3 cm. lato; lamellis liberis, confertis, subventricosis, albis; stipite fistuloso, æquali, subflexuoso, 5 cm. longo, 2 mm. crasso, pileo concolori; annulo infero, fugaci, albido; sporis ellipsoideis, hyalinis, levibus, 8×5 .

Hab. in silvulis, Alburî, Gold Coast Africæ occident. — *L. martiuli* Cooke et Massee affinis.

14. *Lepiota adnatifolia* Peck Rep. of the State botanist 1901, p. 947. 23
— Pileo tenui, centro crassiusculo, subconvexo vel fere plano, minute granuloso vel squamuloso, isabellino alutaceo vel rufo ferrugineo, margine sæpe ob residua cortinæ, appendiculato, 2,5-6 cm. lato; carne alba; lamellis tenuibus, stipatis, adnatis, albis; stipite

basi subincrassato, firmo, farcto, dein maturitate cavo, glabro vel superne subsquamuloso, pallido vel subrufescenti 2,5-3,5 cm. longo, 4-8 mm. crasso; annulo tenui evanido; sporis 5-6 \times 3,5-5.

Hab. ad terram sub Coniferis, Bolton et Hâgue, Amer. bor. — Ad *Armillariam* vergit.

15. *Lepiota Glatfelteri* Peck Bull. Torr. Bot. Cl. 1904, p. 177. — 24

Pileo tenui convexo v. subplano, obtuso v. leviter umbonato, minute innato-fibrilloso, griseo, griseo-brunneo, subinde purpureo-tincto, centro sæpius obscuriore, margine subinde radiatim rimoso; carne alba; lamellis confertis, lanceolatis, liberis albis v. albidis; stipite æquali v. subæquali, firmo, farcto v. cavo, albido; annulo tenui, persistenti; sporis late ellipsoideis, 6-8 \times 4-5.

Hab. ad terram in silvis pr. St. Louis Mo Amer. bor. (N. M. GLATFELTER). — Pileus 2,5-5 cm. lat.; stipes 4-5 cm. long., 2-4 mm. cr.

16. *Lepiota mammosa* P. Henn. F. Indiæ or. II, in Hedw. 1901, 25

p. 335. — Pileo carnosulo, campanulato expanso, centro mammoso-apiculato, brunneolo, radiatim striato dein rimosoque, pallido-brunneo, zebrino, 2-5 cm. diam.; stipite tereti, fistuloso, gracili, levi, glabro, albido, subradicato, 3-8 cm. longo, 2-3 cm. cr., annulo membranaceo fugaci; lamellis liberis, confertis, ventricosis ca. 2 mm. latis utrinque obtusis, pallide cremeis; sporis ellipsoideis 1-guttulatis, 5-6 \times 4-5, hyalinis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

17. *Lepiota eriophora* Peck Bull. Torr. Bot. Cl. 1903, p. 95. — Pileo 26

tenui sicco, late convexo v. subplano, dense squamoso, squamis compactiusculis, brunneis, subinde lanuginosis; carne alba; lamellis tenuibus, angustis, confertis, liberis, albidis, senio v. siccitate fusciscentibus; stipite æquali, cavo, tomento brunneo vestito; sporis minutis 4 \times 2-2,5, sæpe in massulas conglobatis et tunc subangulosis.

Hab. ad terram, West Virginia Amer. bor. (C. G. LLOYD). — Pileus 2,5 cm. lat., stipes 2-3 cm. long., 2-3 mm. cr. Affinis *L. felinæ* et *L. fuscosquameæ*.

18. *Lepiota esitodora* Atkinson in Journ. of Mycol. 1902, p. 115. — 27

— Pileo convexo, cæruleo-cæsiæ, minute verrucoso 2 cm. lato; carne alba tenui; lamellis 3 mm. latis antice angustatis, postice rotundatis, albis luteoque tinctis; basidiis clavatis tetrasporis 25-28 \times 6-7; cystidiis nullis; sporis cylindræis, levibus 9-11 \times 2-2,5; subhymenio e cellulis 4-10 μ . diam. composito; stipite basi acumi-

nato intense brunneo, superne albo-pruinoso, 4 cm. alto; annulo pulverulento, evanescenti; carne alba minuscula, odore foetido, formicino (*eciton ants*).

Hab. ad terram in silvis Cascadilla, Ithaca, N. Y., Amer. bor. (C. O. SMITH).

19. *Lepiota purpureoconia* Atkinson in Journ. of Mycol. 1902, p. 116, 23
 — Sparsa 4-5 cm. alta; pileo convexo 1-2 cm. lato, tenui, albido, in juventute squamulis (veli) lilacino-purpureis vestito; lamellis latis, albis firmis, rotundatis, stipatis sed liberis, subdistantibus; sporis ellipsoideis, levibus, albis, 8-10 \times 3-4; stipite aequali lilacino purpureo, solido, carnosio, supra annulum squamulis albis vestito 3-4 mm. diam.; annulo evanescenti, ex residuo cortinae universalis; carne alba, luteo-tincta.

Hab. in silvis, ad terram, Ithaca Flats N. Y. Amer. bor. (C. O. SMITH).

20. *Lepiota rufidula* Bres. Myc. Lusitanici novi, in Atti R. Acc. di 29
 Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 129.
 — Pileo carnosulo, e campanulato expanso-gibboso vel umbonato, castaneo, cute mox in squamas concolores in fundo rufidulo rupta, 1-2 cm. lato; lamellis subconfertis adnexo-secedentibus, albis, demum pallide rufis; stipite fistuloso, a basi subattenuato, supra annulum glabro vel subpruinato, pallido, striato, sub annulo rufo-castaneo, squamis floccosis, demum evanidis ornato, 2,5-3,5 cm. longo, 2 mm. circ. crasso; annulo infero floccoso, fugaci; basidiis clavatis 20-25 \times 5-6; sporis oblongo-subamygdaliformibus, lateraliter apiculatis 12-15 \times 5, hyalinis.

Hab. ad terram prope Setubal Lusitaniæ. — *Lepiotæ castaneæ* Quél. proxima, a qua sporis majoribus, colore magis rufidulo et lamellis primitus adnexis distinguitur.

SCHULZERIA Bres. — Syll. IX p. 72, XI p. 7, XIV p. 69.

1. *Schulzeria Grangei* Eyre Brit. Mycol. Soc. 1903, pag. 37, 1904, 30
 tab. V, f. 1. — Pileo applanato-umbonato, atio-viridi, in squamas fibrosas subtus albas diffracto, 2,5-4 cm. lato; stipite cylindraceo, pileo concolore pariterque squamuloso; lamellis medio latioribus, subliberis, ex albo alutaceis, minute denticulatis sporis clavato-oblongis, basi apiculatis, minute pluri-guttulatis, hyalinis, 12-13 \times 4-5.

Hab. ad terram inter folia faginea, autumno, Swarraton Rectory Wood, Britannia. — *Schulzeriæ squamigeræ* affinis.

2. **Schulzeria lycoperdoides** Cooke et Masee, Trans. British Mycol. Soc. 1902, p. 13. — Pileo convexo, dein expanso, molli, castaneo, verrucis pyramidatis saturatioribus sæpe basi diffractis consperso (quasi *Lycoperdon*), margine appendiculato; stipite æquali, solido, minute fibrilloso, albido; lamellis satis confertis, liberis, albis; sporis ovoideis, 5×4 .

Hab. ad terram inter Cedros, Kew Britanniae. — Pileus 3-4 cm. lat.; stipes 5 cm. long.

TRICHOLOMA F. — Syll. V p. 87, IX p. 13, XI p. 8, XIV p. 71, XVI p. 20.

1. **Tricholoma niveipes** Peck in the Torr. Bot. Club. 1902, p. 69. — Pileo initio hemisphærico vel convexo, dein subconvexo vel fere plano, sicco fibrilloso, subvirgato, intense brunneo vel griseo-brunneo, 5-12 cm. lato; carne alba; lamellis confertiusculis, adnatis, sinuatis, niveo-albis; stipite æquali, solido, pleno, albo niveo, 5-7 cm. longo, 6-12 mm. crasso; sporis oblongis $7-8 \times 3$.

Hab. ad terram inter acus Coniferarum, South Yarmouth, Massac., Amer. bor. (S. DAVIS).

2. **Tricholoma argyropotamicum** Speg. Mycet. Arg. ser. I, in An. Soc. Cient. Arg. 1899, p. 263. — Pileo hemisphærico convexo 45-50 mm. diam., carnosus, cute sicca flocculosa cinerescens centro reticulato-diffracta, ceterum subsquamulosa, ambitu nuda alba, margine (1 mm.) lamellas excedente tecto; carne alba, compacta, sapore terreo dulci-acri; lamellis 6 mm. alt., relaxatis, rigidulo-fragilibus, acie integerrimis, antice acutato-rotundatis, postice sinuato-adnatis; stipite 50 mm. longo, tereti, apice leniter incrassato 8 mm. cr., ima basi attenuato-obtusato (5 mm. cr.), farcto, carnosofibroso, intus albo, medio subannulato, extus superne levi, subnitive, infra minute squamuloso v. furfurello ac fusciscente, sub parte inflata fibrilloso-striato ac flavescens; sporis . . .

Hab. ad terram denudatam pinguem, La Plata Argentine.

3. **Tricholoma terreum** Schaef. — Syll. V, p. 104. — var. *ætnense* Bacc. in Scilia Fungi Sicil. Orient. serie I, 1900, p. 19. — Cæsipitosum; pileo fuligineo-sericeo, margine involuto, primitus subtundo dein conico-umbonato, postea magis explanato; stipite centrali, albido, fibrilloso; lamellis nec decurrentibus nec constanter crenulatis; odore tenui farinaceo.

Hab. ad terram, Pedara, prope Cataniam Siciliæ.

4. **Tricholoma radicum** Peck in Rep. of the State Botanist, 1902, 35

p. 22, tab. 82, fig. 15-19. — Pileo carnoso, firmo, convexo, sicco, minute sericeo-fibrilloso vel obscure fibrilloso-squamuloso, sæpe lucenti, pallide griseo-brunneo, centro rufo-brunneo tincto, margine tenui, 5-7,5 cm. lato; carne alba, sapore ingrato; lamellis tenuibus, stipatis, emarginatis, adnatis, subdecurrentibus, albis; stipite firmo, subæquali, cavo, subfibrilloso, distincte radicato, albo, 3,5-10 cm. alto, 6-10 mm. crasso; sporis subellipsoideis $5-6 \times 4-5$.

Hab. in silvis Coniferarum, North Elba, Amer. bor.

5. *Tricholoma bisontinum* Rolland in Bull. Soc. myc. de France 1901, 36 tab. I. — Pileo pulvinato, carnoso, cuticula crassa, rigida, brunnea, subvirente, fibrillis minutissimis, adpressis virgata, margine inflexo et fragili; stipite solido, deorsum attenuato, intus farcto, extus rigido, fibrilloso striato, sursum granulis minimis, obscuris punctato, ad summum lutescente, ad inferam partem albido et serius leviter rubescente; lamellis subdistantibus, sinuatis, integris 500 μ . et ultra crassis, fragilibus, cinereis, transverse venis planis, plus minus ramosis, distinctis conjunctis; sporis hyalinis, ovatis, crasse virgulæformibus, guttula magna donatis, circiter $10-12 \times 6$.

Hab. in regionibus juranis, Besançon Gallie. — Caro albida, in pileo sericea, firma, in stipite floccosa, prope cuticulam lutescens, farinam redolens. — A *Tr. murinaceo* sporis multo minoribus, granulosis, magis rotundatis differt.

6. *Tricholoma rimosum* Peck in Rep. of the State Botanist, 1901, 37 p. 947. — Pileo carnoso, convexo, dein fere plano, sæpe margine rimoso, glabro, hygrophano, brunneo-lucenti, in sicco pallido 2,5-4 cm. diam.; carne brunnea, in sicco albida, sapore farinaceo; lamellis tenuibus, constrictis, stipatis, rotundatis, adnatis, acie irregularibus, albidis vel subcinereis; stipite subæquali, sericeo-fibrilloso, cavo, albido 2,5-5 cm. longo, 3-5 mm. crasso; speris ellipsoideis $7,5-9 \times 4-5$.

Hab. in silvis, Bolton Amer. bor.

7. *Tricholoma panæolum* Fr. — Syll. V, p. 132. — var. *deserticola* 38 Speg. in Ann. Soc. Cient. Arg. 1899, p. 274.

Hab. in pratis editoribus prope Choiquelánén, Chubut Patagoniæ (N. ILLIN). — Varietas cum typo habitu, statura, contextu plane conveniens, tamen sporis conspiciens majoribus $9-11 \times 4-6$, sat recedens.

8. *Tricholoma viscosum* Peck Bull. Torr. Bot. Cl. 1904, p. 178. — 39 Pileo carnoso, convexo, margine irregulariter undulato, sæpe senio

sursum involuto, glutinoso, levi, sicco lucenti, flavido-fulvo, centro obscuriore v. rubenti-brunneo; carnè alba, odore levi sed ingrato; lamellis angustis, confertis, subliberis, albis; stipite firmo, æquali, solido, flexuoso, glutinoso, sursum albo, deorsum brunneolo; sporis minutis, subglobosis, 3-4 μ . diam.

Hab. ad terram pr. St. Louis Mo. Amer. bor. (N. M. GLATFELTER). — Pileus 2-5 cm. lat; stipes 2,5-4 cm. long., 4-5 cm. cr.

9. *Tricholoma humile* (Fr.) Quéf. — Syll. Fung. V, p. 136, — var. 40
bulbosum Peck in Ricker Prel. List Maine Fungi, Orono, 1902, p. 61. — A typo differt stipite basi bulboso.

Hab. ad terram, Orono Amer. bor.

10. *Tricholoma Spegazzinii* Sacc. et D. Sacc., *Trichotoma humile* Speg. 41
Mycetes argent. ser. II, 1902, p. 49, nec Fr. — Pileo convexo-plano 20-40 mm. diam. pallide e cinereo avellaneo, centro non vel obsoletissime subumbonato obscuriore, levi, glabro intus carnosulo albo; carne 2-3 mm. cr. parum succosa; lamellis polymaeris antice attenuato-acutatis, postice sinuato-adnatis 4-5 mm. alt, membranaceis, acie integerrimis, albidis, confertis; stipite brevi, centrali, cylindrico, erecto, superne glabro, inferne tenuiter albo-pulverulento 10-15 mm. long., 3-5 mm. cr.; sporis elliptico-ovatis 7-8 \approx 3,5-4, obsolete rugulosis, inferne inæquilateraliter acutatis; cystidiis parce clavulatis, obtusis 20-24 \approx 12-14, hyalinis, levibus.

Hab. in pratis pinguibus herbosis circa S. Catalina pr. Buenos Aires in Argentina

CLITOCYBE Fr. — Syll. V pag. 141, IX p. 18, XI pag. 13, XIV p. 74, XVI, p. 23.

1. *Clitocybe tortilis* Bolt. — Syll. V, p. 198. — var. **gracilis** Peck in 42
Rep. of the State Botanist 1902, p. 36. — Pileo exili 6-12 cm. lato, convexo vel subumbilicato, dein centro depresso vel infundibuliformi, irregulari, margine striato, carne rubra, in sicco pallidiori; lamellis latis, distantibus, adnatis vel decurrentibus, pruinosis; stipite filiformi, firmo, glabro, spongioso, cavo, 12-20 mm. longo, 2 mm. crasso.

Hab. gregaria ad terram in horto botanico New York America borealis.

2. *Clitocybe piceina* Peck Bull. Torr. Bot. Cl. 1904, p. 178. — Pileo 43
carnoso, convexo v. subplano, sicco, albo v. albido, juniore griseo-tincto; carne compacta, alba, sapore acri, odore forti ingrato; lamellis confertis, decurrentibus v. interdum, per stipitem longe de-

currentibus, albo-cremeis; stipite æquali v. subæquali, firmo, obtuso, solido, subfibroso, sæpe apice lineis elevatis striato; sporis, 5-6 μ . diam.

Hab. sub Piceis pr. Chicago Amer. bor. (W. S. MOFFAT et L. H. WATSON). — Pileus 6-10 cm. lat.; stipes 5-7 cm. long., 12-18 mm. cr. *C. cerussatæ* et *C. albissimæ* affinis.

3. *Clitocybe marginata* Peck Bull. Torr. Bot. Club. 1902, XXIX, 44 p. 558. — Pileo carnoso, crassiusculo, subcampanulato, dein convexo, obtuso, v. late umbonato, glabro v. subglabro, sicco, badio-fulvescente, margine primitus involuto; carne flava; lamellis angustis, confertis, decurrentibus, acie rubentibus; stipite subæquali, obtuso, cavo, glabro, nitido, flavido, lineis rubescentibus longitudinalibus notato; sporis subglobosis, 5 \approx 4-5.

Hab. ad truncos emortuos, caespitose, Mt. Desert Maine Amer. bor. — Pileus 5-8 cm. lat.; stipes 5-8 cm. long., 6-12 mm. cr. In subsect. II *Disciformium* locanda species distinctissima.

4. *Clitocybe bipindensis* P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 45 Syll. XVI, p. 1111 (nomen). — Pileo carnosulo hemisphærico-convexo, centro depresso-umbilicato v. subinfundibuliformi, albido, pruinoso, 2-5 cm. diam., glabro; stipite farcto, cylindraceo v. compresso velutino-pruinoso, 4-6 cm. longo, 4 mm. 1 cm. crasso; lamellis decurrentibus, subconfertis, angustis 0,5-0,9 mm. latis, albidis, flexuosis; sporis ovoideis v. subglobosis 3,5-4 μ . diam. hyalinis.

Hab. ad folia putrida, Kamerun Afr.

5. *Clitocybe regularis* Peck in Rep. of the State Botanist, 1901, p. 948, 46 tab. K, fig. 1-7. — Pileo exili 2,5-6 cm. lato, flexuoso, subconvexo dein subplano, sæpe centro subdepresso, orbiculari, regulari albido, in sicco albo; carne alba, sapore grato; lamellis tenuibus, constrictis, stipatis, decurrentibus, albidis; stipite firmo 2,5 cm. longo, 3-5 mm. crasso, æquali, glabro, solido, raro lacunosulo, albido, basi spongioso; sporis minutis 5 \approx 2,5-3.

Hab. ad terram in foliis dejectis, in silvis, Bolton, Americæ borealis.

6. *Clitocybe subconcava* Peck in Rep. of the State Botanist, 1901, 47 p. 948, tab. K, fig. 8-13. — Pileo exili 2,5-5 cm. lato, profunde umbilicato, glabro, hygrophano, brunneo vel rufo-brunneo, margine incurvo striatulo, in sicco albido; lamellis arcuatis decurrentibus, stipatis, pallidis vel subcinereis; stipite æquali, firmo, solido, sæpe lacunoso, subfibrilloso, pileo concolori 2,5-5 cm. longo, 3-4 mm. crasso; sporis minutis 5-5,8 \approx 2,5-3.

Hab. in silvis Coniferarum, Bolton, Amer. bor. — *C. concavæ*, *C. cyathiformi*, *C. expallenti* affinis sed satis distincta.

7. *Clitocybe popinalis* (Fr.) Bres. Fungi polonici in Ann. Mycol. 1903, p. 66, *Agaricus popinalis* Fr. Syst. Myc. I, p. 194, *Agaricus Amarella* Pers. Myc. Europ. 3, p. 99, *Clitocybe senilis* Fr. Ic. Sel. tab. 56, f. 1, Hymen. Europ. p. 98, Syll. V, p. 174.

Hab. ad folia decidua Quercus, augusto-octobri, Polonia. — Sporæ in cumulo luride carneæ, sed sub microscopio prorsus hyalinæ, subglobosæ, episporio punctato-scabro, $4\frac{1}{2}$ -5 \approx 4-4 $\frac{1}{2}$. Species hæc mihi frequens obvia in silvis coniferis, frondosis et pratis vix dubie *Clitocybes* sp., nec *Clitopilis* affinis. *Clitocybe senilis* Fr. ejus statum vetustum sistit (Bres. l. c.).

8. *Clitocybe dealbata* Sow. — Syll. V, pag. 157. — var. *deformata* 48
Peck in Rep. of the State Botanist, 1902, p. 35. — Pileo exili, valde irregulari convexo vel centro depresso, margine undulato-lobato; hymenio interdum in superficie pilei fere dædaloidæ et circumcirca lamellato, albo niveo; lamellis adnatis, subdecurrentibus transverse ramosis v. anastomosantibus, albidis; carne albida, sapore farinaceo; stipite irregulari, interdum compresso, plus minusve basi confluenti, cavo vel farcto, albo, basi tomentoso-lanuginoso; sporis subglobosis 3-3,5 μ diam.

Hab. in calidariis, Newark, Amer. bor.

9. *Clitocybe* ? *castanicola* Bacc. in Scalia, Fungi Sic. orient. ser. I, 49
1900, p. 19. — Pileo carnoso, conico-depresso, umbonato, margine involuto, primum fere circinato; trama stipitis cum trama pilei continua; carne primum albido-straminea dein cærulescente-testacea; stipite farcto; lamellis undulatis, crenatis, sulphureis, decurrentibus, inæqualibus, dein cum carne concoloribus.

Hab. ad terram, Pedara prope Catanam Siciliæ.

10. *Clitocybe centralis* Peck Rep. of the State Bot. 1899, p. 841, 50
tab. C, fig. 16-20. — Pileo tenui 12-30 mm. lato, subconvexo v. subplano, parca umbilicato, glabro, hygrophano, pallide griseo-brunneo et margine substriatulo, centro brunneo, in sicco griseo-albido; carne albida; sapore odoreque farinaceo; lamellis constrictis, stipiti adnatis vel subdecurrentibus, albidis; stipite brevi 2, 5-3,5 cm. longo, 2-4 mm. crasso, æquali, farcto vel cavo, fibroso, pileo concolori; sporis minutis, ellipticis, 6 \approx 3.

Hab. ad terram inter folia dejecta Essex et Warren Americæ borealis.

11. *Clitocybe pumila* (Fayod) Sacc. et D. Sacc. *Laccaria pumila* Fayod 51

in Ann. R. Acc. d'Agric. Torino 1893, p. 91. — Pileo pelliculoso, primo campanulato 5 mm. lato, dein appianato, centro depresso, undulato, radiatim striato, 1-1,5 cm. lato, udo lateritio-carneo (mahagonicolore) centro saturatiore, subsiccio ochraceo; lamellis adnexis, submarginatis, carneis; stipite 1,5 mm. cr., sursum incrassato, in pileum expanso, 2 cm. longo, flexuoso, fistuloso, concolore, basi gossypino, albo; basidiis 2-sterigmaticis haud emergentibus; cystidiis curtis clavato-globosis; sporis sphaericis echinulatis, 12-18 μ . diam.

Hab. catervatim ad terram arenosam, locis humidis, pr. Terra-Pellice in alpinis Pedemontii. — Elegantissima species.

12. *Clitocybe cyanea* Rick in Ann. Mycol. 1904, p. 244. — Cæspi- 52
tosa; pileo subinfundibuliformi, vagis minimis striato, pulcre cyaneo, 3 cm. lato; stipite cylindrico, 5 cm. alto, 4 mm. cr., torto, striato, cyaneo, apicem versus albide consperso; lamellis confertis, inæqualibus, angustis, albis, subdecurrentibus; sporis polygonalibus 2 μ . diam.; mycelio albo cæspites circumtegente.

Hab. ligna terram spectantia, Sao Leopoldo Brasiliæ. — Videtur affinis *C. cyanophææ*.

13. *Clitocybe paulensis* P. Henn. F. S. Paul. III in Hedw. 1904, 53
p. 204. — Pileo carnosulo, infundibuliformi, aurantiaco, levi, glabro v. margine striatulo, 1-2 cm. diam.; stipite subfaretto, tereti, subflexuoso, cinereo-incarnato, substriato, pruinoso, 2,5-3 cm. longo, 1,5 mm. cr.; lamellis longe decurrentibus, confertissimis, angustis, flavidis; sporis globosis 1-guttulatis, hyalinis, 4-5 μ . diam.

Hab. ad terram, Penha da Franca, S. Paulo Brasiliæ. — *Cl. inversæ* proxima, sed vix carnosa.

14. *Clitocybe parasitica* Wilcox, Oklahoma Agr. Exp. Stat. Bull. 1901, 54
n. 49. — Pileo carnosulo fortiter convexo, dein umbonato, demum plano-depresso, melleo demum flavido rubello, centro squamis minutis verrucisque concoloribus consperso; margine valde involuto dein sensim horizontaliter sursumque leniter verso, maturitate saepe radiatim fisso; stipite solido, sinuoso, basim verso leniter tenuato, imaque basi non incrassato, glabro sed vulgo ob cutem diffractam squarruloso; lamellis æqualiter decurrentibus, remotis, numero 80-125, e roseo-albis demum flavido-brunneo tinctis v. uniformiter carneis; sporis ellipsoideis v. subsphaericis, 6,4-7,4 \times 5,6-6, albis.

Hab. cæspitose ad truncorum vivorum, denique mortuorum basim Persicæ, Cerasi, Mali, Quercus in Oklahoma, Amer. bor. — Pileus 7-8 cm. lat.; stipes 12-15 cm. alt., 0,5-1 cm. cr.

Fungus generat sub terra *Rhizomorpham* albo-roseam demum nigrescentem, noctu phosphorescentem arboribus valde noxiam, æque ac *Armillaria mellea*. Affinis videtur *Cl. monadelphæ*.

COLLYBIA Fr. — Syll. V p. 200, IX p. 27, XI p. 17, XIV p. 77, XVI p. 25.

1. *Collybia subclavata* W. G. Smith, Trans. Brit. Mycol. Soc. 1902, 55 p. 14. — Pileo submembranaceo, firmo, campanulato, obtuso, sicco, floccoso, opaco, brunneo, 7 cm. alt., 10 cm. lat.; stipite elongato, cavo, sat gracili, sursum leviter tenuato, basi præmorsso, flocculoso, pallide brunneo, 16 cm. long., 6-9 mm. cr.; lamellis adnexas, distantibus, latissimis, 15 mm., albis; sporis . . .

Hab. inter truncos in silvis, Epping Britannia.

2. *Collybia Henriettae* (W. G. Sm.) Sacc. *Agaricus Henriettae* W. G. 56 Smith in Journ. of Bot. 1903, p. 139. — Pileo sicco, plano, tenuiter lanuginoso, flavido-umbrino, 10 cm. lat.; stipite sursum tenuato, subpruinoso, levi, leviter radiculoso, intus et extus pallide flavido-brunneo, 18 cm. longo, 5-6 mm. cr.; lamellis distantibus, late adnatis sinuatisque, 15 mm. cr.; sporis 12-17 μ . long.; carne tenuissima.

Hab. ad truncos in Britannia, Sept. — Intermedia species inter *Collybiam radicatam* et *C. longipedem*.

3. *Collybia albidula* Pat. in Duss Enum. Champ. Guadel. 1903, p. 49. 57 — Pileo carnoso albo v. rufescente, convexo, orbiculari, plus minus sinuato, glabro, levi, 4-8 cm. lato; lamellis mollibus, albis, latis, adnatis, inæqualibus; sporis incoloribus, ovoideis, levibus, 8-10 \times 5-6; stipite centrali, tenaci, basi inflato, 5 cm. long., regulari, cylindrico, glabro.

Hab. in ligno emortuo in Guadalupa (Duss).

4. *Collybia rugosiceps* Atkinson in Journ. of Mycol. 1902, p. 112. — 58 Pileo sæpe campanulato, firmo, rugoso, luteo-fuligineo, 5 cm. lato; carne alba; lamellis 6 mm. latis, distantibus, adnatis, albis; basidiis 4-sporis oblongo-clavatis, 50-65 \times 6-8; cystidiis clavato-subellipticis, longis, 100-180 \times 25-35, hyalinis; sporis obovatis vel subellipsoideis, levibus albis, 8-11 \times 7-9. stipite albo, 6-7 cm. alto, 1,5 cm. crasso, inferne brunneo, sulcato, ventricosso, spongioso dein cavo.

Hab. ad terram in silvis South Hill, Ithaca, N. Y., Amer. bor. (C. O. SMITH). — Color et sapor subnulli.

5. *Collybia calabarensis* Syd. Ann. Mycol. 1903, p. 177, *Coll. oli-* 59

in Roveredo, vol. VIII, 1902, p. 129 (nec Quél. 1901). — Pileo carnosulo, e convexo subexpanso, haud hygrophano nec margine striato, badio, 1,5-2,5 cm. lato; lamellis subconfertis postice sinuato-adnatis, acie integra, luride carneolis; stipite tereti fistuloso, glabro, pileo concolori, radicato, simul cum radice 3-5 cm. longo, 2 mm. circ. cr.; carne pallide subcarneola, inodora et insipida; sporis obovatis, $6-7 \times 4$; basidiis clavatis, $20-25 \times 6-7$, hyalinis; trama subhymeniali cellulosa; contextu lamellarum e cellulis cylindraceis, latis conflato.

Hab. ad terram pr. Setubal Lusitaniæ.

15. *Collybia subdryophila* P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 69
Syll. XVI, p. 1111 (nomen). — Pileo submembranaceo carnosulo, convexo expanso, flaccido, centro obtuso v. umbilicato-depresso, gilvo-brunneo, levi, glabro, margine sæpe undulato, 1,5-3,5 cm. diam.; stipite fistuloso, compresso, levi interdum sulcato, 3-5 cm. longo, 3-5 mm. cr.; lamellis adnatis, confertis, angustis ca. 1 mm. latis, flavidis; cystidiis clavatis $20-30 \times 7-9$; sporis subglobosis, hyalinis, 3-4 μ . diam.

Hab. ad truncos, Kamerun Afr.

MYCENA Fr. — Syll. V p. 251, IX p. 34, XI p. 20, XIV p. 82, XVI p. 26.

1. *Mycena fusco-purpurea* P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 70
Syll. XVI, p. 1111 (nomen). — Pileo submembranaceo v. carnosulo, convexo-expanso, centro depresso-umbilicato, pruinoso fusco-purpureo 2-3 cm. diam.; stipite subfistuloso, tereti curvato, striatulo 2-3 cm. longo, 2-3 mm. crasso concolori; lamellis sinuoso-adnatis interdum dente decurrentibus, subconfertis, ventricosis, acie suberassiusculis, atro-purpureis; sporis ellipsoideis v. ovoideis, $3,5-4 \times 3-3,5$ hyalinis.

Hab. in candicibus putridis, Kamerun Afr.

2. *Mycena Arcangeliana* Bres. in Barsali Agg. Micol. Pis. in Bull. 71
bot. It. 1904, p. 78. — Cæspitosa; pileo submembranaceo e conico campanulato expanso-umbonato, ad medium striato, pallido, umbone fuscido, dein unicolore, 1,5-3 cm. lato; lamellis subconfertis, postice adnato uncinatis, albis, demum late roseis; stipite tereti v. rarius compresso, glabro, nitido e fumoso-violaceo fuscido, fistuloso, basi radice albo-strigosa prædito, carne pallida, stipitis subcartilaginea, intus fibrosa, fuscidula, odore forti, fere carnis anata, sapore miti; sporis obovoideis v. subglobosis, hyalinis,

6-9 \times 4,7-6, plerumque 6-7 \times 5-5,5; basidiis clavatis 25-30 \times 6,5-7,5; cellulis aciei lamellarum obovoideis apice muriculato v. scabro, tenuiter tunicatis, 30-38 \times 15-30.

Hab. ad stipitem Pritchardiae filiferæ in horto botanico Pisano Dec. (G. ARCANGELI). — Ab affini *M. levigata* differt odore forti, lamellis demum roseis et stipite fusco.

3. *Mycena cuspidata* Massee in Bot. Tidsskrift, Copenhagen 1902, 72 vol. 24, p. 213. — Pileo e conico-campanulato subexpanso, umbone valde prominente prædito; margine undulato, striato, luteo-brunneo, centro atro-umbrino, 2-3 cm. lato; stipite fistuloso, æquali, glabro, pallido, 4-5 cm. longo; lamellis confertis, fere liberis, ventricososis, pallidis sporis 4 \times 2,5, hyalinis.

Hab. in ligno emortuo Koh Chang Noi, Siam Asiæ merid. — *M. galericulatæ* Fr. affinis.

4. *Mycena rugosoides* Peck in Rep. of the State Botanist, 1902, p. 22, 73 tab. *M.* fig. 17-34. — Pileo carnosulo sed tenui, campanulato, vulgo subumbonato, glabro, hygrophanum, æquali, margine striato, in sicco pallido et irregulari, irregulariter radiato-rugoso, colore variabili 12-24 mm. lato; lamellis subdistantibus, rotundatis, stipitem versus emarginatis, adnatis, albidis v. albido-isabellinis; stipite longo, æquali, glabro, cavo, albido, radicato, basi villosulo tomentoso rufo-brunneo, 3,5-7,5 cm. longo, 1-3 mm. crasso; sporis ellipsoideis 7,5 \times 5, granulosis.

Hab. gregaria in muscosis truncisque dejectis Coniferarum, North Elba, Amer. bor.

5. *Mycena bipindensis* P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 74 Syll. XVI, pag. 1111 (nomen). — Pileo carnosulo-membranaceo campanulato v. subconico, cinereo, radiato, obscuriori striato, subruguloso, vertice obtuso v. subumbonato, atro, 1-3 cm. diam.; stipite tenaci, subfarcto, striato interdum torto, cinereo, 3-4 cm. longo, 3-4 mm. cr.; lamellis sinuoso-adnexis, subconfertis, lanceolatis, pallidis; sporis subglobosis levibus, 3,5-4 μ . diam., hyalinis.

Hab. ad truncos putres, Kamerun Afr.

6. *Mycena cinerea* Massee et Crossl., The Naturalist 1902, p. 1. — 75 Tota grisea vel pallide plumbea; odore intenso raphanoideo; pileo 1,5-2 cm. diam., subgibboso vel obtuso, dein expanso, margine striatulo, in sicco pallido sericeoque; lamellis adnatis, subdistantibus, margine pallidis; sporis ellipticis, levibus, albis, 8 \times 5; cystidiis fusiformibus; stipite 5-7 cm. longo, tenui, cylindrico, glabro, fistuloso, basi lanuginoso, albo.

Hab. in graminosis, Selby, Yorks, Kew, Surrey, in Britannia.

— *M. plumbeæ* Fr. affinis.

7. *Mycena conocephala* P. Henn. F. Ind. or. II, in Hedw. 1901, 76 p. 334. — Cæspitosa; pileo submembranaceo, primo subovoideo dein conico-campanulato, albido, apice conico-acuto brunneo, radiatim striato, levi, glabro 1-2 cm. diam.; stipite fistuloso, æquali-tereti, levi, glabro, substriato, pallido, 2-3 cm. longo, 1 mm. cr.; lamellis adnatis, subconfertis, subventricosis 1-1,5 mm. latis, pallidis; sporis subglobosis v. ovoideo-ellipsoideis, 1-guttulatis, 5-7 × 4-6, hyalinis.

Hab. ad terram, Saharanpur-Garden Ind. orient.

8. *Mycena Aschi* P. Henn. in Engl. Bot. Jahrb. 1901, p. 55. Syll. 77 XVI, p. 1111 (nomen). — Pileo tenui membranaceo, campanulato-expanso, centro subconico-papillato, radiato-striato, ca. 1 cm. diam., albido; stipite fistuloso, gracili, levi, glabro 4-6 cm. longo, 1 mm. crasso, albo; lamellis sinuoso-adnatis, subdistantibus, lanceolatis, pallidis; sporis ellipsoideis, 4-5 × 3, hyalinis.

Hab. ad terram, Kamerun Afr.

9. *Mycena rubidula* Bres. Mycologia lusitanica, in Broteria vol. II, 78 1903. p. 87. *Myc. rubro-marginata* Fr. p. p.? — Pileo conico-campanulato, membranaceo, centro umbonato, carnosulo, glabro, striato-sulcato, rubello, margine expallido, 8-12 mm. lato; lamellis distantibus, adnato-subuncinatis, albis, acie fuscido-rubella; stipite pallido, fistuloso, glabro 3-4 cm. longo, 1-2 mm. cr., basi albo-tomentoso-fibrilloso; basidiis clavatis 25-30 × 7-8; sporis hyalinis, sublimoniformibus, 7-9 × 4,8-5,5.

Hab. ad corticem Eucalypti globuli, in Lusitania. — Species hæc *Mycenæ rubro-marginatæ* Fr. admodum proxima, forte hucusque cum ista confusa, nam cum eiusdem figura in Fries Icon. sel. Tab. 78, fig. 4 bene convenit at ab hac specie, qualis a me et etiam ab auctoribus est intellecta, satis superaque distincta (Bres. l. c.).

10. *Mycena illuminans* P. Henn. Hedw. 1903, p. (309). — Pileo tenui membranaceo, subcampanulato, dein convexo, pallido v. flavidulo, medio umbilicato-depresso, viscido, obscuriori, radiatim striato plicatoque, 5-15 mm. diam.; stipite fistuloso, tereti, curvato, pallido, levi, glabro, 5-12 × 0,7-1 mm., basi bulbilloso subdiscoideo, usque 2 mm. incrassato; lamellis sinuoso-adnatis, subdistantibus, inæquilingis latisque medio usque 2 mm. latis, ventricosis, utrinque at-

tenuatis, pallidis v. albis; basidiis clavatis 20-25 \approx 6-8; sporis globosis levibus, 1-guttulatis, hyalinis, 6-8 μ . diam.

Hab. ad truncos Calami in horto Bogor. Javæ (VOLKENS). — Vivide phosphorescens.

11. **Mycena sphærospora** Massee in Kew Bull. 1901, p. 161. — Pileo campanulato, sicco, levi, olivaceo, 4-6 mm. lato; lamellis annexis, angustis, subdistantibus, albido-olivaceis; stipite filiformi, basi incurvato, pileo concolori, 2-3 cm. longo; sporis hyalinis, globosis, verruculosis, 4 μ . diam.

Hab. in silvulis, Old Calabar Africae occident.

EOMYCENELLA Atkins. Bot. Gaz. 1902, p. 36 (Etym. *eos* primitivus et *Mycena*). — Fungus stipitatus, pileatus. Pileus e campanulato expansus, imperfecte lamellatus, tenuissimus, e filamentis articulatis, ramosis, radiantibus formatus, subtus remote anguste radiatim plicato-lamellatus, lamellis stipitem non attingentibus, trama rudimentali. Basidia clavata, tetraspora. Sporæ 1-cellulares, hyalinæ. Ad *Mycenas* et *Marasmios* tenuissimos accedere videtur.

1. **Eomycenella echinocephala** Atkins. l. c. f. 1. — Tota 3-8 mm. alta, candida; pileo 0,5-0,75 mm. lat., supra et margine echinulato-fimbriato; stipite filiformi pilis veluti capitellatis consperso; basidiis breve clavatis 9-12 \approx 6-9; sporis obovoideo-oblongis, levibus, basi subapiculatis, 6-8 \approx 3-4, hyalinis.

Hab. in foliis emortuis Rhododendri maximi, Blowing Rock N. C. Amer. bor.

OMPHALIA Fr. — Syll. V p. 308, IX p. 41, XI p. 23, XIV p. 84.

1. **Omphalia calycinoides** P. Henn. Fungi Indiæ or. II, in Hedw. 1901, p. 334. — Membranacea tenuis, cæspitose fasciculata; pileo infundibuliformi, radiatim striato plicatoque albido, sicco flavido, margine subrepando, 1-2 cm. diam.; stipite fistuloso, gracili superne incrassato, subclavato, levi glabro v. substriato, e pallido brunneo, 1-1,5 cm. longo, 0,5 mm. lato; lamellis longe decurrentibus, triquetris, distantibus basi anastomosantibus usque ad 1 mm. latis, pallidis; basidiis clavatis, 18-20 \approx 6, sterigmatibus 4 subulatis; sporis subglobosis v. ellipsoideis, hyalinis, levibus 5-6 \approx 4.

Hab. ad terram v. in radicibus?, Saharanpur-Garden Indiæ orient.

2. **Omphalia sphagnophila** Peck, Harrim. Alaska Exped. Crypt. p. 47. — Pileo anguste obconico et centro depresso, demum tubiformi

v. subinfundibuliformi, tenui, glabro, albido v. pallide flavo; lamellis latiusculis, distantibus, longe decurrentibus, flavis, interstitiis sæpe venosis; stipite brevi, solido v. medullato, pruinoso v. minute tomentoso, albido, basi albo-mycelioso; sporis late ellipsoideis, $6-7 \times 4-5$.

Hab. inter Sphagna, Port Clarence Alaska (TRELEASE). — Pileus 1-2 cm. lat.; stipes 1-2 cm. long., 2-4 mm. cr. *Omph. umbelliferæ* vere affinis, a qua forma pilei junioris et lamellis longius decurrentibus distinguitur.

3. **Omphalia Arechavaletæ** Speg. Myc. Arg. ser. I, in Ann. Soc. Ci-⁸⁴
cut. Argent. 1899, pag. 263. — Solitaria v. paucigregaria; pileo hemisphærico 10-15 mm. diam., convexo, carnosulo, exumbonato, centro glabro v. pulvisculo heterogeneo adperso, margine integro, in juventute subinvoluta; carne tenui flocculosa, citrina; lamellis subangustis atque subconfertiusculis, antice acutis, postice truncato-adnatis denticuloque breviter decurrentibus, primo citrinis dein nubecula ex albo-violascente velatis; stipite erecto flexuosulo, sæpius compresso sæpeque longitudinaliter grosse parceque sulcato 20-25 mm. long. 2,5-5, mm. cr., basi attenuato, apice abrupte in pileum expanso, glabro, levi, inferne citrino medio flavo, superne aurantiaco et sæpe glauco-pruinoso intus latissime fistuloso; sporis ovatis v. ellipticis, $12 \times 6-7$, nubiloso-faretis, hyalinis.

Hab. ad terram in pratis editioribus pr. Montevideo, Uruguay.

4. **Omphalia Stuckerti** Speg. Mycet. argent. ser. II, 1902, p. 49. —⁸⁵
Pileo primo hemisphærico, leniter umbilicato dein elongato infundibulari vel subcornucopiformi 5-8 mm. long. et diam., margine semper plus minusve involuto, glabro, fulvo, testaceo v. lateritio-aurantiaco; lamellis subconfertis, non tuberculatis, anguste linearibus utrinque acutis, 5-8 mm. long. et 0,5 mm. latis, subtenuibus acie integerrimis polymacris, deorsum sensim longeque decurrentibus pallidioribus; stipite tereti v. subcompresso fistuloso 6-12 mm. longo 0,5-1 mm. diam., pileo concolori, basi abruptiuscule subbulboso 2,5-4 mm. diam.; basidiis et cystidiis subcylindræis $16-20 \times 4-5$ hyalinis, levibus, sterigmatibus brevibus; sporis ovatis, apice altero obtusis, altero acutiusculis, $6-6,5 \times 3,5-4$, hyalinis, levibus, sæpius grosse 1-guttulatis.

Hab. ad radices superficiales Punicæ Granati, prope Cordoba in Argentina (T. STUCKERT).

5. **Omphalia Campanella** Batsch — Syll. V, p. 327. var. *sparsa*⁸⁶
Peck in Rep. of the State Botanist. 1901, p. 964. — Pileo con-

vexo parce umbilicato interdum nigro-papillato, 8-12 mm. lato; lamellis luteis, decurrentibus, latiusculis, subdistantibus; stipite filiformi 2,5-5 cm. longo, æquali, glabro, cavo, nigro vel brunneo-nigro, basi tomentoso.

Hab. sparsa in silvis Coniferarum, ad terram, Bolton, Amer. bor.

6. *Omphalia virginalis* Quélet XIX Suppl. des Champ. de Jura e 87 des Vosges, pag. 2, planche III, fig. 4. — Pruinosa, translucida, alba; stipite capillari, 5-6 mm. long, basi inflato ibique filamentis sericeis radiantibus cincto; pileo convexo, dein appianato, 3-4 mm. lato, umbilicato, striato; lamellis arcuatis, remotis, latiusculis; sporis ovoideo-sphæricis, 8-9 μ . long., punctatis, hyalinis.

Hab. ad truncos muscosos, Jura Galliæ.

PLEUROTUS Fr. — Syll. V p. 339, IX p. 45, XI p. 24, XIV p. 88, XVI p. 36.

1. *Pleurotus lignatilis* (Pers.) Gill. — Syll. V, p. 344. — var. *albo-virens* Quél. *Omphalia lignatilis* (Pers.) Quél. var. *albo-virens* Quél., Assoc. franc. p. l'Avanc. Scienc. 1901, partie II, 1902, p. 494 tab. III, fig. 1. — Pileo convexo undulato, 4-8 cm. lat., umbilicato, pruinoso, albo; carne tenui, sapida, alba, odore farinæ; lamellis adnatis, confertis, tenuibus, undulatis, demum dentato-fimbriatis (ut in *Lentino*), albo-virentibus; stipite excentrico, farcto, tenaci, subradicante, pruinoso albo; sporis ovoideo-oblongis, 7-8 μ . longis, hyalinis.

Hab. cæspitosa ad Populos in viridario Tête-d'Or, Lyon, Gallia (M. COUVERT).

2. *Pleurotus spadiceus* Karst. Fung. nov. Loennb. 1904, p. 1 (Finska Vetensk. Soc.). — Pileo suborbiculari, plano, carnosulo, cute gelatinosa, ut videtur, marginem versus submembranaceo, confertissime pellucide striatulo siccitateque cartilagineo, glaberrimo, spadiceo, circiter 10 cm. lato; stipite excentrico, incurvo, siccitate cartilagineo, praesertim apice furfuraceo, inferne incrassato, rufescente, circiter 3 cm. longo, 1 cm. crasso; lamellis adnatis, secudentibus, confertis, albis; cystidiis nullis; sporis subsphæroideis 3-4 μ . diam.

Hab. in regione Knopioënso, Sibiriae Aug 1903 (O. A. F. LÖNNBOHM). — Ad *Pleurotum subpalmatum* proxime accedit.

3. *Pleurotus violaceo-cinereus* P. Henn. in Engl. Bot. Jahrb. 1901, p. 54, Syll. XVI, p. 1111 (nomen). — Imbricato-cæspitosus; pileo

carnoso, excentrico, convexo-conchiformi, violaceo-cinerecente, sparse obscurius squamuloso, 3-6 cm. longo, 2-5 cm. lato, margine tenui involuto; stipite excentrico v. laterali, farcto, subtereti usque ad 4 cm. longo, 1,5 cm. crasso, cinereo-striatulo: lamellis decurrentibus, subconfertis, 1,5-2 mm. latis, albo-flavescentibus; basidiis clavatis 20-25 \times 6-8; sporis subglobois, levibus, hyalino-flavescentibus 4,5-6 μ . diam.

Hab. in basi truncorum, Kamerun Afr.

4. **Pleurotus membranaceus** Massee in Kew Bull. 1901, p. 151. — 91
Pileo membranaceo, dimidiato, flabelliformi, margine ut plurimum lobato, albo, glabro 5-7 cm. lato; lamellis subconfertis, angustis, albis, postice decurrentibus; sporis ovato-oblongis, hyalinis 9-10 \times 5-6.

Hab. in truncis, Poona, prov. Bombay Indiæ brit. (WOODROW).

5. **Pleurotus stratosus** Atkinson in Journ. of Mycol. 1902, p. 116. 92
— Gregarius vel sæpe imbricatus; pileo sessili, lateraliter brevi stipitato 2-5 cm. lato, 2-3 cm. longo, obovato vel late cuneato, margine plano, in exemplaribus majoribus crenato, viscoso, sordide albo vel pallide fulvo, minute tomentoso vel longis setulis in cæspitulos confertis, consperso, convexo vel depresso, tenui, duro, non striato; lamellis sordide albis vel maturitate pallide luteis, angustis, 1-1,5 mm., ad stipitem convergentibus, stipatis; basidiis clavatis 4-sporis 20-25 \times 4-5; cystidiis numerosis, breve lanceolato-fusoideis, hyalinis vel sordide luteolis, 45 \times 10-14; sporis ovoideis vel subglobois, levibus, granulosis 2-3 μ . diam.

Hab. ad ligna putrida Cayuga Lake, Warner's Glen, Ithaca N. Y. Amer. bor.

6. **Pleurotus similis** Peck Rep. of the State bot. 1899, p. 841. — 93
Pileo carnoso 2,5-5 cm. diam., flexibili, spathulato, flabellato vel suborbiculari, convexo, glabro, albo vel luteo-albo; carne alba; lamellis angustis, subdistantibus, decurrentibus, basi distinctis, albis; stipite brevi, 6-12 mm. longo, 4-6 mm. crasso, glabro, basi villosa, solido, laterali vel excentrico, albo; sporis subellipticis 5-7,5 \times 3-4,2.

Hab. in truncis emortuis *Ostryæ virginianæ*, solitarius v. cæspitosus, West Shokan Amer. bor. — *Pl. pantoleuco* affinis.

7. **Pleurotus Eryngii** (DC.) Gill. — Syll. V, p. 347. — var. **cæspitoso-terrester** P. Henn. in Hedw. 1901, p. 98, Syll. XVI, pag. 1111 (nomen). — Plerumque cæspitosus, pileo lente carnoso, tenaci, firmo, convexo, explanato dein medio depresso, irregulari, cinereo-

rubescens, interdum subsericeo, demum rimoso subsquamulescens, margine undulato, interdum lobato-inciso, 2-8 cm. diam.; stipite subexcentrico, firmo, tereti, subclavato, pallido usque ad 4 cm. longo, 0,5-1 cm. cr.; lamellis decurrentibus subdistantibus, tenacibus, angustis, pallide flavescentibus; sporis oblongo-ellipsoideis, 1-guttulatis, hyalinis, 8-11 \times 6, levibus.

Hab. prope Biskra, Algeria.

8. **Pleurotus macilentus** Massee in Kew Bull. 1901, p. 161. — Pileo 95
flaccido, tenuissimo, flabelliformi, margine interdum lobato, albo
flavido, glabro, striato, 4-5 cm. lato; lamellis latis, subconfertis,
albidis, postice abrupte attenuatis; stipite laterali, brevi, 6-8 mm.
longo crassoque; sporis ellipticis 9-10 \times 6.

Hab. in ligno emortuo; Old Calabar Africae occident.

9. **Pleurotus Harmandi** Har. et Pat., Champ. rec. au Jap. in Bull. 96
du Mus. d'Hist. nat. 1902, n. 2, p. 131. — Sparsus v. subcæspit-
tosus, primitus clausus et subglobosus, sessilis, lateraliter uno pun-
cto affixus, dein secundum æquatorium circumscissus, parte supe-
riori in pileum antice liberum postice indehiscens abeunte, parte
inferiori tuberculiformi, limbo volviformi prædita, primitus libera,
dein cum pilei margine concrenatis; pileo conchiformi, centro
pallidiori depresso, integro v. sinuoso, squamoso, velutino, fulvo-
brunneo, margine involuto; lamellis dilute luteis, decurrentibus,
confertis, strictis, inæqualibus, simplicibus, basim versus distanti-
bus magis venosulis, contextu carnoso, obscure luteo; basidiis 2-
4-sterigmaticis, clavatis, 40-50 \times 5-6; cystidiis apiculatis capitatisve;
sporis globosis, levibus 9 μ . crassis.

Hab. in silva Chuiznipi, Tokyo Japoniæ (HARMAND).

10. **Pleurotus bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 54, 97
Syll. XVI, p. 1111 (nomen). — Pileo carnoso molli, flabellato v.
reniformi, horizontali, sæpe lobato v. inciso-crenato, albido, prui-
noso 2-4 cm. diam.; stipite laterali, late compresso, concolori ca.
5 mm. longo latoque, basi discoideo, byssino; lamellis decurrenti-
bus latiusculis, subconfertis, inæquilongis, albidis; sporis cylindra-
ceis, obtusis, basi oblique apiculatis, 8-10 \times 3-3,5.

Hab. ad caudices emortuos, Kamerun Afr.

11. **Pleurotus portegnus** Speg. — Syll. V, p. 366. — var. **microspo-** 98
rus Speg. Myc. Arg. ser. II, 1902, p. 50. — A typo differt sporis
minoribus, 6 \times 3.

Hab. ad ramos dejectos putrescentes in silvula S. Catalina pr.
Buenos Aires.

12. **Pleurotus minutus** Peck in Rep. of the State Botanist, 1901, 99 p. 949. — Pileo minuto, reniformi vel suborbiculari, dein resupinato, interdum maturitate subreflexo, sæpe centro subdepresso 2-4 mm. lato, flocculoso-pruinoso, albo, margine involuto; lamellis inæqualibus, angustis, distantibus, decurrentibus, albis v. albidis; stipite brevi, excentrico, curvo, pruinoso albido, basi tomentoso, 2 mm. longo.

Hab. in truncis emortuis Betulæ prope Loonlake, Amer. bor.

13. **Pleurotus graminicola** (Fayod) Sacc. et D. Sacc. *Pleurotellus hypnophilus* Fayod olim nec B., *Pleurotellus graminicola* Fayod Ann. Acc. d'Agr. Torino 1893, p. 90. — Perpusillus, 8-11 mm. lat., reniformis, albus, inferne subcarneus, parasiticus; pileo sessili, sub lente pubescenti, margine inflexo, in juventute subcupulari; lamellis confertis, angustis, subcarneis; subhymenio subnullo; basidiis et cystidiis claviformibus; sterigmatibus binis-quaternis; sporis sublacrimiformibus, $7 \approx 3$.

Hab. ad gramina in Pedemontio. — *Pl. craterello* et *Pl. hypnophilo* affinis.

14. **Pleurotus septicioides** P. Henn. F. Amaz. I in Hedw. 1904, p. 184. 101 — Pileo subresupinato basi affixo, sessili, tenue membranaceo, subreniformi, integro v. lobato, superne lacteo gilvescente, pruinoso, levi, basi subhyssino, 3-8 mm. diam; lamellis radiantibus subdistantibus, inæquilongis, pallidis, in sicco alutaceis, angustis, c. 0,3 mm. latis; basidiis clavatis; sporis subglobosis hyalinis, levibus, 2,5-3,5 μ . diam.

Hab. ad ramos putres Rio Juruá, Juruá-Miry. — *Pleuroto septico* habitu proximus, sed sporæ omnino diversæ.

15. **Pleurotus rufipes** (Mass. et W. G. Smith) Sacc. et D. Sacc. *Agaricus rufipes* Mass. et Sm. in Journ. of Bot. 1903. pag. 385. 102 Pileo dimidiato v. reniformi, convexo, membranaceo, udo valde glutinoso, albo, centro salmonicolore, margine incurvato, stipite denique incurvato, viscoso-rubido, intus salmonicolore, medio albo, basi pubescente; lamellis adnatis, latis, distantibus, albis, interstitiis subroseis; sporis . . . (non descriptis).

Hab. ad ligna in Britannia. — Pileus 3-4 mm. diam., stipes 4-5 mm. long., 0,6 mm. cr.

HYGROPHORUS Fr. — Syll. V p. 378, IX p. 52, XI p. 27, XIV p. 91, XVI p. 39.

1. **Hygrophorus** (*Limacium*) **castaneus** P. Henn. in Engl. Bot. Jahrb. 103

1901, p. 50, Syll. XVI, p. 1111 (nomen). — Pileo carnosulo, convexo v. centro depresso, viscido, granuloso vel verrucoso, castaneo, margine involuto, velo viscoso, ca. 0,5-1,5 cm. diam.; stipite facto, tereti pallide flavido, levi, glabro 1-2,5 cm. longo, 1,5-2,5 mm. cr.; lamellis adnatis, subdecurrentibus, subconfertis, arcuatis, pallide flavis; basidiis clavatis, 23-25 \times 6-8; sporis ellipsoideis v. ovoideis, hyalinis 6-8 \times 3,5-4.

Hab. ad ramos putres, Kamerun Afr.

2. ***Hygrophorus (Limacium) glutinosus*** Peck in Rep. of State Botan. 104
1901, pag. 950. — Pileo carnosulo, firmo, convexo glutinoso, albo, sæpe glutine luteo tincto, in siccio margine involuto, 2,5-5 cm. lato; carne alba; lamellis subdistantibus, adnatis, albis; stipite æquali, solido, albo, floccoso-tomentoso, inferne glutinoso, superne guttulis glandularibus consperso vel in siccio rubro punctulato 2,5 cm. longo, 6-8 mm. crasso; sporis 7,5-10 \times 5-6.

Hab. ad terram in Amer. bor. — Ab *Hygr. gliocyclus* lamellis adnatis differt, ab *Hygr. eburneo*, stipite solido, superne rubro picto differt.

3. ***Hygrophorus (Limacium) paludescens*** Peck in the Torr. Bot. Club. 105
1902, p. 70. — Pileo carnosulo, convexo, obtuso verrucis luteo-brunneis dense vestito, 2-4 cm. lato; carne albida, sapore subacri, odore terreo; lamellis adnatis vel subdecurrentibus, subdistantibus, albidis, in vetustate griseo-luteo zonatis; stipite subæquali, longiusculo, flexuoso, basi subcurvulo, solido, glutinoso, albo, superne punctis luteis notato, in siccio longitudinaliter brunneo striato-fibroso, 5-10 cm. longo, 4-8 mm. crasso; sporis albis, subellipticis 8-10 \times 5-7.

Hab. ad terram turfosam, inter muscos, Greenville, Mich., Amer. bor. (B. O. LONGYEAR).

4. ***Hygrophorus (Limacium) Peckii*** Atkinson in Journ. of Mycol. 106
1902, p. 114. — Gregarius vel sparsus, 6-10 cm. alt.; pileo convexo, margine sæpe curvulo, dein expanso depressoque vel subumbilicato fulvo vel fulvo-vinoso, 1-2,5 cm. lato, viscido, interdum griseolo, margine rubro-striato; lamellis latis, albis, stipitem versus luteolis, distantibus, arcuatis, decurrentibus; sporis ellipsoideis, subinaequilateralibus, levibus, granulosis 6-8 \times 4-5; stipite 2-4 mm. crasso, fragili, cavo, sæpe longitudinaliter fissio, odore foetido.

Hab. in silvis, Cornell Heights, Ithaca (C. H. KAUFFMAN), Blowing Rock, N. C. et Piseco, N. Y. (DOCT. PECK).

5. **Hygrophorus** (*Limacium*) **pusillus** Peck in the Torr. Bot. Club. 107
1902, p. 69. — Pileo convexo, tenui, subviscido, glabro, albo, 1-2
cm. diam; stipite brevi, glabro, cavo, albo, basi tomento mycelioi-
deo albido donato, 2-2,5 cm. longo, 1-2 mm. crasso; lamellis ar-
cuatis, subdistantibus, decurrentibus, albis; sporis 4-6 μ . longis.

Hab. ad terram in silvis, Moscow Mountains, Idaho, Amer.
bor. (L. F. HENDERSON).

6. **Hygrophorus** (*Limacium*) **subviolaceus** Peck Rep. of the State Bot. 108
1899, pag. 842, tab. C, fig. 11-15. — Pileo firmo, hemisphærico
dein convexo, glabro, viscido, hygrophano, violaceo, in sicco pal-
lido vel griseo 2,5-4 cm. lato; carne alba; lamellis arcuatis, di-
stantibus, decurrentibus, pallide violaceis; stipite aequali vel utrinq-
ue conico, firmo, glabro, albo 2,5-4 cm. longo, 4-8 mm. crasso;
sporis subglobosis vel fere ellipsoideis. 6-7,5 \approx 5-6.

Hab. in paludosis, Meadowdale, Amer. bor.

7. **Hygrophorus** (*Hygrocybe*) **miniatus** Fr. — Syll. V, p. 413. — var. 109
sphagnophilus Peck Rep. of the State bot. 1899, p. 856. — Pileo
late convexo, subumbilicato, rubro; lamellis adnatis, albidis, dein
luteolis, interdum rubro-tinctis, raro margine rubris; stipite pileo
concolori, basi albidulo, superne fragilissimo.

Hab. in muscosis Kasoag, Amer. bor.

8. **Hygrophorus** (*Hygrocybe*) **pallidus** Peck in the Torr. Bot. Club. 110
1902, p. 69. — Pileo tenui, convexo, dein subplano, margine in-
terdum recurvato undulatoque, glabro, hygrophano, pallide lila-
cino vel pallide violaceo, interdum margine striatulo, in sicco gri-
seo-albo, 1,5-3 cm. lato; lamellis subincrassatulis, distantibus, ar-
cuatis adnatis vel subdecurrentibus, pileo concoloribus, in sicco
subcinereis; stipite tenui, æquali, glabro, cavo, albo, 2,5-5 cm.
longo, 2-4 mm. cavo; sporis albis, subglobosis, 5-6 \approx 4-5.

Hab. ad terram, Massachusset, Amer. bor. (S. DAVIS). — *Hygr.*
sphærosporo et *H. Peckii* affinis.

9. **Hygrophorus** (*Hygrocybe*) **subrufescens** Peck in Rep. of the State 111
Botanist. 1902, p. 23, tab. M, fig. 1-6. — Pileo carnoso, margine
tenui, convexo vel fere plano, sicco minute floccoso-squamuloso,
pallide roseo vel griseo-roseo, 2,5 cm. lato; carne albida, roseo
picta; sapore grato; lamellis subdistantibus, decurrentibus, albidis;
stipite longiusculo, subæquali, flexuosulo, glabro, solido, albo, 3,
5-5,7 cm. longo, 4-8 mm. crasso; sporis ellipsoideis 7,5 \approx 5.

Hab. in silvis, Port Jefferson, Amer. bor.

10. **Hygrophorus** (*Hygrocybe*) **hypholomoides** P. Henn. in Engl. Bot. 112

Jahrb. 1901, p. 50, Syll. XVI, p. 1111 (nomen). — Pileo sub-carnoso, convexo-expanso, flavo, sicco, levi, glabro, 2,5-3 cm. diam., centro obtuso, subaurantiaco; stipite farcto dein fistuloso, tereti, interdum flexuoso, glabro 2-5 cm. longo, 2-3 mm. cr., flavo-rubescenti; lamellis adnatis, subconfertis, flavidis, angustis; sporis subglobosis, levibus 4-5 μ . diam. hyalinis.

Hab. ad ligna putrida, Kamerun Afr.

11. **Hygrophorus** (*Hygrocybe*) **bipindensis** P. Henn. in Engl. Bot. 113
Jahrb. 1901, p. 49, Syll. XVI, p. 1111 (nomen). — Pileo carnosulo e campanulato expanso, centro depresso umbilicato obscuriori, margine striato, glabro, sicco aurantiaco-cinnabarino, 2,5-4 cm. diam.; stipite farcto, tereti, æquali, levi, 3-7 cm. longo, 2,5-4 mm. cr., concolori, basi fibroso; lamellis decurrentibus, subdistantibus, inæquilongis, luteis v. pallide aurantiacis, acie incrassatis; sporis subglobosis, levibus 3,5-4 μ . diam. hyalinis.

Hab. ad terram umbrosam, Kamerun Afr.

12. **Hygrophorus** (*Hygrocybe*) **juvuensis** P. Henn. F. Amaz. I in Hedw. 114
1904, p. 181. — Pileo carnososo-ceraceo, rotundato, umbilicato, depresso v. infundibuliformi, levi, glabro, sicco margine radiato-striatulo, coccineo, 1-2 cm. diam.; stipite fistuloso, tereti, æquali v. subclavato, aurantiaco, levi, glabro, 2-4 cm. longo, 1-1,5 mm. cr.; lamellis decurrentibus, distantibus, inæquilongis, subventricosis, usque ad 2 mm. latis, pallide flavidis, ceraceo-rigidis, acie integris, obtusis; basidiis clavatis, 25-35 \times 7-10; sporis ellipsoideis v. subovoideis, 1-guttulatis, hyalinis, 7-11 \times 5-8, levibus.

Hab. ad terram argillaceam Rio Juruá, Bom Fim, Amazonia (ULE).

LACTARIUS Fr. — Syll. V p. 423, IX p. 56, XI p. 31, XIV p. 94, XVI p. 43.

1. **Lactarius** **foetidus** Peck in Rep. of the State Botanist, 1901, 115
p. 949. — Pileo carnososo, firmo, subplano vel centro depresso, minute sericeo-lanuginoso, pallide luteo-brunneo, dein brunneo, 5-7,5 cm. lato; carne albida, lacte albo, odore foetido, sapore grato; lamellis subdistantibus, adnatis vel subdecurrentibus, luteo-albis, dein rubro-brunneis; stipite 2,5-5 cm. longo, 4-6 mm. crasso, æquali, solido, glabro, albido; sporis subellipsoideis vel subglobosis 6-8 μ . diam.

Hab. ad terram, in silvis Snyders, Rensselaer co., Amer. bor.

2. **Lactarius** **subdulcis** (Bull.) Fr. — Syll. V, p. 450. — **var. oculatus** 116

Peck in Rep. of the State Botanist, 1902, p. 37. — Pileo humido, subhygrophano, vinaceo, centro (in umbone) macula parvula persistenti rufo-brunnea prædita; cetera ut in typo.

Hab. in abietinis, North Elba Americæ bor.

LACTARIOPSIS P. Henn. in Engl. Bot. Jahrb. 1901, pag. 51, Syll. XVI, p. 1111 (Etym. *Lactarius* et *opsis* facies). — Pileus carnosus; margine involuto cum stipite velo membranaceo conjunctus. Hymenophorum cum stipite contiguum; lamellæ adnato-decurrentes inæquales, ceraceo-rigidulæ, lactescentes. Sporæ globosæ subhyalinæ asperulæ. A *Lactario* differt margine pilei cum stipite (velo membranaceo) conjuncto; cetera eadem.

1. **Lactariopsis Zenkeri** P. Henn. l. c. — Pileo carnoso, rigido, plano-convexo, centro umbilicato depresso, dein expanso subinfundibuliformi, flavo-brunneo, pruinoso 1-3 cm. diam., margine involuto, subrepando vel striato, primo cum stipite velo membranaceo conjuncto; stipite farcto, cylindraceo-subclavato, striatulo, concolori, postice annulato-marginato, basi attenuato, ca. 2-4 cm. longo, 3-6 mm. lato; lamellis adnato-decurrentibus, confertis, ceraceis, rigidulis, angustis ca. 1 mm. latis, flavo-ochraceis; cystidiis obclavatis 35-46 × 18-21; basidiis clavatis 20-26 × 7-9; sporis globosis, hyalinis vel minute flavidulis, aculeato-asperatis, 6-8 µ. d.

Hab. ad terram et in lignis putridis, Kamerun Afr. orient.

RUSSULA Pers. — Syll. V p. 453, IX p. 59, XI p. 29, XIV p. 96, XVI p. 46.

1. **Russula magnifica** Peck in Rep. of the State Botanist 1902, p. 24, tab. N, fig. 1-4. — Pileo carnoso, convexo vel umbilicato, centro depresso vel infundibuliformi, glabro, viscido, aequali, centro squamoso 10-25 cm. diam; carne albida, odore saporeque alcalino, forti ingratoque; lamellis angustis, stipatis, inæqualibus, adnatis subdecurrentibusque, albidis roseoque pictis, dein rufo-brunneis stipite æquali vel inferne constricto, solido, dein spongioso, albo 5-12,5 cm. longo, 16-36 mm. crasso; sporis albis, subglobosis, 7, 5-10 vel 6-7,5 µ. diam.

Hab. in silvis, Port Jefferson, Amer. bor.

2. **Russula indecorata** Karst. Fungi nov. Loennb 1904, p. 1 (Finska Vetensk. Soc.). — Mitis; pileo carnoso, ex convexulo explanato depressove, firmo, dein fragili ut plurimum regulari, subruguloso, rufo vel subbrunneo, marginem subpatentem, tenuem, demum le-

viter sulcatum versus pallidiore, pellicula sicca subseparabili tecto, carne alba, circiter 10 cm. lato; stipite cylindraceo, deorsum leviter incrassato, spongioso-farcto vel cavo, sublevi, albo, inferne obsolete rufescente, circiter 12 cm. longo, 2-4 cm. crasso; lamellis subliberis aequalibus, confertis, ex albo pallidis, simplicibus.

Hab. in silva acerosa montana, Syrjö, prope Mustiala Fenniae, parce Aug. 1902 (P. A. KARSTEN).

3. **Russula cremoricolor** Earle in New York Bot. Gard. 1902, p. 340. 120

— Pileo convexo 6-10 cm., centro depresso, intense cremeo, disco obscuriore, levi, margine integro, incurvo; lamellis heterophyllis, subsinuosis, substipatis, planiusculis, pallide cremeis; sporis albis, globosis, parce echinulatis, 5.5-7 μ . diam.; stipite 4-6 \times 2.5-3.5 cm., irregulari, subaequali, levi, albo, solido; carne albida, immutabili, sapore piperino, odore fere nullo.

Hab. ad terram in silvosis, Stanford University Californiae.

— *R. mustelinæ* Fr. affinis.

4. **Russula rugulosa** Peck Rep. of the State Bot., 1900, pag. 179, 121

tab. 72, fig. 12-18. — Pileo tenui, fragili, convexo, dein fere plano vel centro depresso, viscido, dein ruguloso-tuberculato, margine aequali dein tuberculato-striato, pellicula margine secedenti, 5-10 cm. lato, rubro; carne alba, sapore subnullo dein acri; lamellis stipatis, adnatis et subrotundatis, albis; stipite fere aequali, dein spongioso, albo 5-7, 5 cm. longo, 8-16 mm. crasso; sporis albis, rugosis, subglobosis, 7.5-10 μ . diam.

Hab. in silvis Adirondack, Amer. bor.

5. **Russula paxilloides** Earle in New York Bot. Gard. 1902, p. 341. 122

— Pileo expanso, subdepresso, carnoso, 5-9 cm. diam., disco albido plus minusve ad marginem integrum miniato, levi, viscidulo; lamellis anastomosantibus, subsinuosis, latis, subplanis albidis v. cremeo-luteolis; sporis pallide luteis, globosis e latere rugosis, 7-9 μ . diam.; stipite variabili 5-11 \times 1.5-3 cm., aequali, levi, spongioso; carne albida, immutabili; sapore intense piperino; odore fere nullo.

Hab. ad terram in silvulis, Stanford University Californiae. —

R. veterinosae Fr. affinis.

6. **Russula ventricosipes** Peck in the Bull. Torr. Bot. Club, 1902, 123

p. 70. — Pileo tenui, subconvexo, subplano vel parce centro depresso, glabro, pallide alutaceo usque brunneo-luteo, 5-7 cm. lato; carne alba; lamellis tenellis, angustis, adnatis, subsinuosis, albis vel albidis, in sicco decoloratis; stipite firmo, ventricosus, solido raro intus spongioso, subglabro, superne albido, basi rufulo, 5-7

cm. longo, 2,5 cm. crasso, ad medium paullo constricto; sporis late ellipticis vel subglobosis, 6-8 \approx 6.

Hab. in arenosis, South Yarmouth, Massac., Amer. bor. (S. DAVIS).

7. **Russula palustris** Peck Rep. of the State Bot., 1890, p. 842. 121

Pileo tenui, fragili, subgloboso vel hemisphærico, dein convexo v. subplano, viscido rufo-brunneo vel purpureo-rubro, margine tuberculato-striato, 5-7,5 cm. lato; carne alba, pelliculam versus rubro-tincta; sapore acri; lamellis integris, substipatis, albidis dein luteolis; stipite æquali, glabro, spongioso dein cavo, fragili, albido, sæpe rubro-tincto, 4-7,5 cm. longo, 8-12 mm. crasso; sporis subglobosis, 1-nucleatis 7,5-10 μ . diam.

Hab. in paludosis sub Alni, Jayville, St. Lawrence co., Amer. bor. — *R. decoloranti* affinis.

8. **Russula granulata** Peck Rep. of the State Bot. 1899, t. C, f. 1-5. 125

— Pileo convexo, dein subplano vel centro depresso, viscido, minute granuloso-squamuloso, dein margine tuberculato-striato, intense luteo et rubro-brunneo tincto 5-7,5 cm. lato; carne albida, sapore acri; lamellis angustis, stipatis, adnatis basi furcatis, albidis; stipite æquali vel summo abrupte contracto, glabro, spongioso, albido 2,5-3,5 cm. longo, 12-16 mm. crasso; sporis subglobosis 7,5 μ . diam.

Hab. in silvis, Denning, Ulster co., Amer. bor. — Rara! — var. **lepiotoides** Atk. apud Peck, Rep. of the State Bot., 1902, p. 37. A typo differt pileo rimoso-squamoso. Cetera ut in typo. In silvis, Piseco, Hamilton county, Amer. bor. valde frequens.

9. **Russula æruginescens** Peck Rep. of the State Bot. 1899, p. 843. 126

— Pileo convexo dein umbilicato vel centro depresso, glabro, viscido margine æquali griseo vel griseo-luteo 5-7,5 cm. lato; carne alba, sapore acri; lamellis angustis stipatis, 1-2-furcatis, adnatis vel subdecurrentibus, albis; stipite æquali, spongioso, albo, 2,5-5 cm. longo, 12-20 cm. crasso; sporis albis, subglobosis 7,5 μ . diam.

Hab. in silvis, Claryville, Americæ borealis. — *R. æruginere* affinis.

10. **Russula abietina** Peck Rep. of the State Bot. 1900, pag. 180, 127

tab. 72, fig. 1-11. — Pileo tenui, fragili, convexo, dein fere plano vel centro subdepresso, viscido, tuberculato, margine striato 2,5-6 cm. lato; carne alba, sapore grato; lamellis subdistantibus, ventricosis, stipitem versus angustatis, rotundatis, subliberis, albidis, dein pallide luteis; stipite æquali, apice conico, farcto vel cavo,

albo, 2,5-5 cm. longo, 6-10 mm. crasso; sporis luteo-ochraceis, subglobosis, rugosis 7,5-10 μ . diam.

Hab. in silvis inter truncos Coniferarum, Amer. bor.

11. *Russula integrâ* (L.) Fr. — Syll. V, p. 475. — var. *rubro-tincta* 128
Peck Rep. of the State Bot. 1900, p. 164. — Stipite rubescenti; pileo intense rubro; lamellis pulvere lutea (sporæ) conspersis

Hab. ad terram prope Placid Lake, Amer. bor. (Miss N. L. MARSHALL et Miss H. C. ANDERSON).

12. *Russula delica* Fr. — Syll. V, p. 455. — var. *glaucophylla* Quél. 129
Assoc. franc. p. l'avanc. scienc. 1901, partie II, 1902, p. 495. — Differt a typo lamellis glaucis, sapore acri piperato.

Hab. ad terram in Gallia. — Sec. Quél. huc spectat *Lactarius chloroides* et *L. Listeri* Krombh. t. 56, f. 8-9 et 56, f. 1-4.

13. *Russula purpureo-lilacina* Fayod in Ann. R. Acc. d'Agr. Torino 130
1893, p. 87. — Pileo denso subtenaci, obscure purpureo subvelutino, primo hemisphærico, margine sinuato, dein pulvinato, 4,3-6 cm. lato, centro leniter depresso minute granulato-diffracto, margine levi; lamellis integris, postice attenuatis, antice rotundatis semper flavidis; stipite æquali farcto roseo-lilacino, præcipue primo lilacino-pruinoso; basidiis $36 \approx 6$ emergentibus; sporis sphæricis verrucosis, 6 μ . diam.

Hab. catervatim v. solitaria ad terram in castanetis pinetisque in alpibus Pedemontii et Liguriæ orient. — Præcipue stipite basi *persicina* dignoscenda species.

14. *Russula flaviceps* Peck Rep of the State Bot. 1899, pag. 843, 131
tab. C, fig. 6-10. — Pileo convexo vel centro depresso, glabro, viscido, initio margine æquali, dein subtuberculoso-striato, pallide luteo 5-10 cm. lato; lamellis stipatis, constrictis, acie subrotundatis, pallide luteolis, dein luteis; stipite æquali, farcto dein spongioso, albo, 4-6,5 cm. longo, 8-16 mm. crasso; sporis luteis, subglobosis 7,5 μ . diam.

Hab. in silvis Claryville, Amer. bor.

15. *Russula Earlei* Peck in Rep. of the State Botan. 1902, p. 25, 132
t. N, fig. 5-10. — Pileo carnosio, firmo, hemisphærico, dein late convexo vel fere plano, interdum centro depresso, glabro, viscido, margine æquali vel interdum rimoso, stramineo, dein maturitate pallido, 3,5-6 cm. lato; carne albida vel luteola, sapore grato; lamellis tenuibus, distantibus, adnatis, initio albidis dein luteolis; stipite brevi, firmo, æquali, solido dein spongioso, albo, 2,5-3,5 cm. longo, 6-10 mm. crasso; sporis albis, subglobosis, 5-6 μ . diam.

Hab. in silvis, Port Jefferson, Amer. bor.

16. **Russula pulverulenta** Peck in the Torr. Bot. Club, 1902, p. 70. 133

— Pileo subtenui, convexo, dein centro depresso vel subumbilicato, margine æquali pulverulento-furfuraceo, griseo-brunneo, 3-5 cm. lato; carne albida, odore foetido, sapore ingrato; lamellis substipatis, albis; stipite subæquali, superne albo, inferne pallido, dense luteo punctato; 3-4 cm. longo, 8-10 mm. crasso; sporis globosis 8 μ . diam.

Hab. in silvis, Michigan, Amer. bor. (B. O. LONGYEAR).

17. **Russula luteo-basis** Peck Bull. Torr. Bot. Cl. 1904, p. 179. — 134

Pileo convexo, demum subplano, levi v. margine leviter et indistincte striato, roseo v. rubenti, demum toto pallidiori v. flavido v. centro tantum, cuticula separabili; carne alba v. albida; lamellis adnatis v. adnatis, æqualibus, cremeo-flavidis v. albidis, senio v. siccando infuscatis; stipite subæquali, leviter purpuraceo, farcto, albo, basi flavo; sporis subglobosis, 8 μ . diam., subinde tantum 7 μ .

Hab. ad terram pr. St. Louis Mo Amer. bor. (GLATFELTER). —

Pileus 2,5-7 cm. lat.; stipes 2,5-5 cm. long., 4-12 mm. cr.

18. **Russula deremensis** P. Henn. Fungi Afr. orient. II, in Bot. 135

Jahrb. XXVIII, p. 36. — Pileo carnoso, primo subgloboso, dein convexo, centro depresso, flavo brunneo, cute rimoso, 3-4 cm. diam., margine primo subinvoluta, dein acuto, tenui, levi, vix striatulo; stipite spongioso farcto, tereti, pallide flavo, 2,5-3 cm. longo, 0,8-1 cm. cr.; lamellis adnatis, vix decurrentibus, subconfertis, pro parte ad marginem furcatis, utrinque attenuatis, medio 3-4 mm. latis, pallide flavis; basidiis clavatis 23-30 v. 8-10, sterigmatibus 2-4, subulatis ca. 4 μ . longis; sporis globosis 6-8 μ ., episporio hyalino-flavidulo, aculeato asperatis, aculeis ca. 1 μ . longis.

Hab. ad terram, Derema, Usambara Afr. (SCHEFFLER).

CANTHARELLUS Adans. — Syll. V p. 482, IX p. 63, XI p. 32, XIV p. 99, XVI p. 48.

1. **Cantharellus cibarius** Fr. — Syll. V, p. 482. — var. **multiramis** 136

Peck Rep. of the State Bot. 1899, p. 856. — Pileo regulari, margine recurvato; lamellis ramosissimis et anastomosantibus, ut in *C. floccoso*.

Hab. ad terram, Denning, Amer. bor. — Var. **neglectus** Souché in Bull. Soc. Myc. France 1904, p. 39. — A typo differt pileo tenuiore, dilutius citrino, lamellis brevius decurrentibus, pallide griseo-violaceis, stipite graciliori, odore fungi subnullo. Ad terram

prope Pramproux, Deux Sèvres Gallia. — Var. *albipes* Peck in Rep. of the State Botanist, 1902, pag. 37. A typo differt stipite albido. Ad terram in Amer. bor.

2. **Cantharellus subcarneus** Fayod in Annali R. Acc. d'Agr. Torino 1893, p. 81. — Pileo campanulato, repando, 2-4 cm. lat., margine undulato, tenui; plicis lamelliformibus, parum reticulatis; primo pure subcarneis, pruinosis, dein in aurantiacum vergentibus; stipite subexcentrico deorsum leviter attenuato, c. 6-10 mm. cr.; subhymenio denso unistratoso; basidiis claviformibus, longissimis, $55 \approx 11$, tetra- vel disterigmaticis; sporis ellipsoideis, dorsaliter parum depressis, $15 \approx 5$.

Hab. in graminosis vulgo catervatim, mense Aug. pr. S. Lorenzo Pellice in alpebus Pedemontii frequens. — *Canth. cibario* proximus sed minor, firmior, margine tenuior.

3. **Cantharellus miniatus** Fayod in Ann. R. Acc. d'Agr. Torino, 1893, 138 p. 82, *Ch. ignescens* Fayod in Ann. Sc. Nat. Bot. IX ser., 9 tom., p. 304. — Minor; pileo 1,5-3,5 cm. lat., 1 mm. cr., excentrico, centro depresso, tenui, plus minus lobato et sinuoso, primo miniato dein subaurantiaco stipiteque subtiliter velutino; lamellis carneis, pliciformibus v. typicis, interstitiis venosis; stipite farcto vulgo curvato, miniato; sporis ellipsoideis, æquilateris, $8-10 \approx 5-6$.

Hab. ad terram nudam, juxta vias, catervatim, Angrogna Pellice et S. Germano Pedemontii, Aug. — *C. subcarneo* affinis, sed colore, statura minore sporisque majoribus recedit.

4. **Cantharellus pulcrifolius** Peck in the Torr. Bot. Club, 1902, p. 71. 139 Pileo exili convexo vel centro subdepresso, glabro, margine indistincte ciliato, albo, circ 1 cm. lato; lamellis simplicibus, inæqualibus, distantibus, decurrentibus, luteis; stipite 1-1,5 cm. longo, 1 mm. crasso, æquali, glabro, cavo, albo; sporis ellipticis $8 \approx 4-5$.

Hab. in lignis putridis, Moscow Mountains, Idaho, Amer. bor. (L. F. HENDERSON).

5. **Cantharellus violaceo-griseus** P. Henn. in Eagl. Bot. Jahrb. 1901, 140 p. 45, Syll. XVI, p. 1112 (nomen). — Pileo submembranaceo, infundibuliformi, levi, 2-3,5 cm. longo, 3-5 mm. cr., basi subbulboso incrassato, tomentosulo; lamellis pliciformibus, striiforme decurrentibus, inæquilongis, haud dichotomis, pallide violaceis; sporis haud conspicuis.

Hab. ad ligna putrida, Kamerun Afr.

6. **Cantharellus dovrefjeldiensis** Henn. et Kirschst. in Hedw. 1902, 141 p. (62). — Pileo minutissimo, subcarnoso, flavo vel citrino, con-

vexo, centro depresso-umbilicato, pruinoso, margine primo involuto dein undulato v. subcrispulo, 2-5 mm. diam.; stipite firmo, subtereti, pallido, pruinoso 2-2,5 mm. longo, 0,5-0,8 mm. crasso; lamellis distantibus, pliciformibus, crassis, inæquilongis, haud dichotomis, flavidis; basidiis clavatis 2-4-sterigmaticis, 20-24 \times 4-6; sporis ovoideis, hyalinis, intus granulatis, 4-5 \times 3-3,5.

Hab. ad terram, Dovrefjeld Norvegiæ (W. KIRSCHSTEIN).

7. **Cantharellus ochraceus** (Pat.) Sacc. et D. Sacc. *Neurophyllum ochraceum* Pat. in Dass Enum. Champ. Guad. 1903, p. 38. — Rigidus, lignescens, ochraceo-rufescens, flabellatus, applanatus, convolutus, inciso-lobatus, laciniis plus minus imbricatis e trunco communi seu stipite, infra rotundato, supra canaliculato duro orientibus; facie super. velutina, levi v. undulato-tuberculosa, margine rotundato, tenui, sinuato, angusto recto v. inflexo; hymenio infero longe decurrenti, venis obtusis, parum eminentibus, confertis simplicibus ramosisve percurso; basidiis ovoideis 25-30 \times 15 deorsum longe stipitiformi-tenuatis; sterigmatibus 2-4; cystidiis nullis; sporis ochraceis, ovoideis, verrucosis, 16-20 \times 6-10, basi tenuatis.

Hab. ad ligna emortua in silvis Rains-Jaunes, Guadelupa. — Trama granulosa, dura, pallida, strato corticali molliori crasso, ochraceo tecta. Fungus totus 10-15 cm. long., stipes 3-5 cm. long. Affinis *C. clavato* sed colore pilei sporisque verrucosis diversus.

8. **Cantharellus bryophilus** Peck in Harrim. Alaska Exp. Crypt. p. 46. — Pileo tenui, dimidiato, flabellato v. subspathulato, raro lobato, glabro plerumque albo-tomentoso, sessili basi plus minus lata; lamellis angustissimis, ramosis v. furcatis, remotis; sporis late ellipsoideis v. subglobosis, 6-7 \times 5-6.

Hab. inter muscos Muir Glacier Alaska (TRELEASE). — Pileus 1-2,5 cm. lat. A *C. muscigeno* pileo azono et diverse colorato distinguitur. Specimina sicca nigrescunt.

9. **Cantharellus pedicellatus** (B. Lázaro) Sacc. et D. Sacc. *Dictyolus pedicellatus* B. Lázaro in Bol. de la Soc. españ. de Hist. Nat. 1902, p. 154, t. III, f. h-o (absque diagnosi). — Pileo stipitato dimidiato flabellato, flavo-pallido, margine sinuoso, parce carnosus; hymenio concolore, remote venoso, venis parum prominulis, simplicibus v. sæpius bi-trifurcatis; stipite cylindrico angustissimo flavo-aurantio sursum vix dilatato, basi nonnihil incrassato; sporis . . . (non descriptis).

Hab. ad terram in pratis de la Herreria del Escorial Hispaniæ

(MAXIMO LAGUNA). — Pileus 0,5 cm. alt.; stipes 0,5 cm. alt. A *C. Laguna* colore et minutie diversus.

10. *Cantharellus Laguna* (B. Lázaro) Sacc. et D. Sacc., *Dictyolus Laguna* B. Lázaro in Bol. Soc. españ. de Hist. Nat. Madrid 1902, p. 153, t. III, f. *a-g* (absque diagnosi). — Pileo stipitato dimidiato-flabellato, pallide griseo, sicco sordide griseo opaco, parce carnosus, margine 1-2-fisso et subsinuoso; hymenio remotiuscule venoso, venis parum prominulis, obtusulis, simplicibus, raro bifidis; stipite cylindrico sursum vix dilatato et applanato, pileoque concolore, deorsum olivascente, in sicco fere albo; sporis . . .

Hab. inter muscos ad terram, El Escorial Hispaniæ (MAXIMO LAGUNA). — Pileus 1-2 cm. lat.; stipes 0,5-1 cm. alt., 1 mm. cr.

11. *Cantharellus helvelloides* P. Henn. F. Amaz. I in Hedw. 1904, p. 181. — Pileo stipitato subtremellosus-membranaceo, helvelloideo-lobato, plicato, rufo, 2,5 cm. diam.; stipite fistuloso, subtereti compresso, pallide brunneo vel rufescente, pruinoso, 1-2 cm. longo, 1-1,5 mm. cr. hymenio reticulato-venoso, rufo, venis subpliciformibus, paullulum elevatis, interdum obsoletis; sporis subglobosis, 2,5-3 μ . diam., hyalinis.

Hab. ad truncos putres, Rio Juruá, Juruá-Miry, Amazonia (ULE). — Ob naturam subtremellosam ad Tremellaceas nutat, hinc ulterius inquirenda species.

TROGIA Fr. — Syll. V p. 635.

1. *Trogia cinerea* Pat. Champ. de la Guadeloupe, ser. III, in Bull. Soc. Myc. de France, T. XVIII, fasc. II, 1902. — Pileo membranaceo integro subinfundibuliformi, glabrescente, griseo, margine involuto; stipite farcto, cylindrico, regulari albido, centrali, glabro, basi mycelio discoideo albo, angusto cincto; lamellis decurrentibus, simplicibus, æqualibus, copiosis, angustissimis, crassiusculis, rufescenti-pallidis, pruinulosis, acie obtusa vel canaliculata; sporis hyalinis, ovoideo-subglobosis, 6-7 μ . diam., levibus.

Hab. in fragmentis putridis Hoffmanniæ tubifloræ in Guadalupa (Duss). — Pileus 8-10 mm. alt. et lat.; stipes 2-3 cm. long. 1-2 mm. crassus; lamellæ 0,5 mm. lat. A speciebus affinis colore diverso, stipite graciliore, pileo regulari etc. diversa.

2. *Trogia hispida* Massee in Kew Bull. 1901, p. 162. — Pileo orbiculari, conchiformi, resupinato, membranaceo, dorsi centro affixo, brunneo, hispido, 2-3 mm. lato; lamellis centro radiantibus,

confertis, angustissimis, acie incrassatis; sporis ellipsoideis, subhyalinis 5 × 3.

Hab. in ramis emortuis Akin Forest, prope Aburi, Gold Coast Africae occident. — *T. Alni* Peck affinis.

RIMBACHIA Patouill. — Syll. XI p. 32, XVI p. 1112.

1. **Rimbachia ? camerunensis** P. Henn. in Engl. Bot. Jahrb. 1901, 149 p. 45. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo subgelatinoso, tubiformi, stipitato, erecto, lacteo, pagina externa levi, glabro cum stipite contiguo, 1-3 cm. alto, 1-2 cm. lato; stipite excentrico v. centrali 3-10 mm. longo, 1-1,5 mm. cr., concolori; hymenio superiorem partem infundibuliformem obtegente, primo levi dein striato-pliciformi, gyroso-reticulato; sporis haud conspicuis.

Hab. ad caudices putres, Kamerun Afr.

MARASMIUS Fr. — Syll. V p. 503, IX p. 65, XI pag. 32, XIV p. 101, XVI p. 50.

1. **Marasmius subplancus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 150
— Syll. XVI, p. 1112 (nomen). — Pileo coriaceo, campanulato-expanso, flavido, centro subumbilicato v. subpapillato, brunneo, obscuriore, radiatim striato sulcatoque, 3-6 cm. diam.; stipite cavo, corticato, alutaceo, striato, contorto, 6-12 cm. longo, 2-3 mm. cr.; lamellis adnatis subconfertis, late ventricosus, pallide flavidis.

Hab. ad terram, Kamerun Afr.

2. **Marasmius subpilosus** Peck Bull. Torr. Bot. Cl. 1903, p. 95. — 151
Pileo tenui, levi v. centro ruguloso, margine striato, pruinoso-pubescente, convexo v. subplano, subinde leviter umbilicato, albedo, sæpe centro brunneo-flavido-tincto; lamellis latiusculis, ventricosus, adnatis, subsinuatis, albis, acie minute ciliatis; stipite gracili, tenaci, farcto v. cavo, pruinoso-pubescente, basi griseo-tomentoso, rufo-brunneo, sursum albo.

Hab. inter folia et ramulos in silvis udis, Idaho Amer. bor. (L. F. HENDERSON). — Pileus 1-2 cm. lat.: stipes 2,5-5 cm. long., 0,5-1 mm. cr.

3. **Marasmius pseudosplachnoides** P. Henn. in Engl. Bot. Jahrb. 152
1901, p. 47. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo-coriaceo, convexo, pallide flavo, centro umbilicato, brunneo, concentrice subzonato, radiato-striatulo. ca. 1 cm. diam.; stipite tenaci, fistuloso, 3-5 cm. longo, 1 mm. cr., flavo-brunneo, basi in-

crassato, strigoso; lamellis adnatis subconfertis, angustis, brunneolis; sporis globosis 3,5 μ . diam., hyalino-flavidulis, levibus.

Hab. in foliis putridis, Kamerun Afr.

4. **Marasmius Copelandi** Peck Bull. Torr. Bot. A. 1904, p. 182. — 153

Pileo tenui, molli late convexo, glabro, fulvo, sapore et odore fortibus, ingratis; lamellis paucis, inæqualibus, distantibus, adnatis, pallidis; stipite gracili, molli, cavo, deorsum velutino-pubescenti et brunneo, sursum pallidiore et minus pubescenti; sporis subfusoides, uno apice acutioribus, 12-15 \times 4.

Hab. in foliis emortuis *Quercus densifloræ*, Woodside California (C. B. COPELAND). — Pileus 1-2 cm. lat.; stipes 4-6 cm. long., 1-2 mm. cr.

5. **Marasmius ochraceo-papillatus** P. Henn. Pilz. S. Paul. III, in Hedw. 154

1904, p. 203. — Pileo membranaceo, convexo-campanulato, centro depresso, subochraceo, conico-papillato, niveo, sericeo nitenti, villosa, margine plicatulo, 1,5-2 cm. diam.; stipite curvato, tereti, ferrugineo, subtomentoso, c. 1 mm. longo, 0,3 mm. cr.; lamellis adnatis, paucis, distantibus, ventricosis, flavidulis; sporis ovoideis v. subglobosis, hyalinis, 1-guttulatis, 4-5 \times 4.

Hab. in ramis tenellis emortuis, Serra da Cantareira, S. Paulo Brasilæ. — Pusilla species pileo albo-sericeo flavo-papillato distincta.

6. **Marasmius platensis** Speg. Myc. argent. ser. II, 1902, p. 51. — 155

Collybioides, scorteus, candidus, laxe cæspitosus; pileo convexo-applanato non hygrophano, tenacello, opaco, levi, 15-35 mm. diam., glabro, candido; carne tenacello-subflocculosa, 0,5-1 mm. cr. alba; lamellis 2-3,5 mm. latis, ex albo-cremeis, remotis adnatis subcrassiusculis, dense venoso-clathratis concoloribus; stipite albo, compresso, tenacello, pulverulento, 25-50 mm. long., 3-3,5 mm. lat., 1,5 cr., basi mycelio himantiaceo albo radicato; basidiis clavulatis, 20-25 μ . long., 6-7 μ . cr., tetrasporis hyalinis; sporis ex elliptico subnavicularibus, inferne acutiusculis 5-6 \times 3-3,5, levibus, hyalinis.

Hab. ad folia putrida coacervata, S. Catalina in Argentina. — Species notis nonnullis ad *Heliomycetem* vergens, natura tamen recedens.

7. **Marasmius leptopus** Peck in Rep. of the State Botanist, 1902, 156

p. 25. — Pileo tenui, subconvexo vel fere plano, glabro, margine rugoso-striatulo, rufo-brunneo, 6-10 mm. lato; lamellis tenuibus, angustis, stipatis, adnatis, albis; stipite filiformi, glabro, cavo,

albido vel pallido 2,5-3,5 cm. longo, 1-2 mm. crasso; sporis oblongis vel anguste ellipsoideis 7,5-8,5 \times 3-4.

Hab. in foliis dejectis, in horto botanico Bronxpark N. Y. Americæ borealis.

8. **Marasmius jonides** Pat. in Duss Enum. Champ. Guadel. 1903, 157 p. 45. — Pileo orbiculari, e convexo plano, tenui submembranaceo, opaco, centro sordide violaceo, marginem versus brunneo, 2-6 cm. lat., glabro, sub vitro pulverulento, cute e cellulis rotundo-ellipsoideis, tenui-tunicatis, levibus, 20-50 \times 20-30, materie violacea v. brunnea farctis formata; hymenio albo-flavido; lamellis distantibus, angustis, inæqualibus, stipiti adnatis; basidiis 30 μ . long.; cystidiis cylindræis apice rotundato-obtusis v. ovoideis, 30-50 \times 12-16, tenui-tunicatis; sporis incoloribus, ovoideis, tenui-tunicatis, 10 \times 3; stipite centrali, cylindræo, 2-4 cm. longo, 1-3 mm. cr., regulari, rufescente, ubique pilis patulis albis copiosis vestito.

Hab. ad terram, in silvis Trois-Rivières in Guadalupe (Duss).

9. **Marasmius hygrocyboides** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. 159 — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, convexo, flavo-subaurantiaco, radiatim striato, medio umbilicato v. depresso papillatoque atro-aurantiaco, 6-11 mm. diam.; stipite tenaci, filiformi, fistuloso, tomentosulo 1-2 cm. longo, 0,5-0,8 mm. cr., flavo-brunneo; lamellis adnatis, subconfertis, lanceolatis flavo-aurantiacis.

Hab. ad ramos putres. Kamerun Afr.

10. **Marasmius griseo-flavus** P. Henn. in Engl. Bot. Jahrb. 1901, 159 p. 46. — Syll. XVI, pag. 1112 (nomen). — Pileo membranaceo, campanulato-expanso, centro obtuso v. subumbilicato, griseo-fuscescente, margine striatulo, 1-2 cm. diam.; stipite tenaci, fistuloso, tereti, pallido, pruinoso, basi subincrassato, 1,5 cm. longo, 1-2 mm. cr.; lamellis sinuoso-adnatis, subconfertis, latis, flavis; sporis subglobosis, 3-3,5 hyalinis.

Hab. ad folia putrida, Kamerun Afr.

11. **Marasmius glaucopus** (Pat.) Sacc. et D. Sacc. *Androsaceus glaucopus* Pat. in Duss Enum. Champ. 1903, p. 43. 160 — Pileo campanulato-convexo, margine involuto, plicato-sulcato, centro venoso-ruguloso, obscure rufo-purpureo, velutino, 2 cm. diam., cuticulæ cellulis erectis, rubris, apice oblongo-cylindrico; lamellis latis, parum confertis, inæqualibus, utrinque attenuatis, acie integris, venis nullis connexis, atro-purpureis, pruina glauca, copiosa; sporis incoloribus, ovoideis, 8 \times 5; stipite 3 cm. longo, tenaci, cylindrico,

cavo, obscure fulvo-rubescente, apice præsertim pruina cinerea obducto, 3 mm. cr.

Hab. in trunco *Chrysophylli*, Pointe-Noire, Guadalupa. — *M. atrorubenti* affinis, sed robustior, stipite crassiore, lamellis aliter coloratis.

12. **Marasmius flavidulus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 161
— Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, campanulato expanso, centro umbilicato v. depresso, papillato, radiato-striato v. subsulcato, flavidulo, 2-3 cm. diam.; stipite fistuloso, gracili subcorneo, flavidulo, pruinoso, 6-10 cm. longo, 1-1,5 mm. cr. lamellis adnatis, subconfertis, ventricosus 2 mm. latis, concoloribus.

Hab. ad folia emortua, Kamerun Afr.

13. **Marasmius elæicola** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 162
— Syll. XVI, pag. 1112 (nomen). — Pileo coriaceo, campanulato expanso, centro umbonato, pallide flavo, radiato striato, margine undulato, 3-5 cm. diam.; stipite fistuloso, tereti, flexuoso, æquali, substriato, flavo v. flavo-brunneo, usque ad 10 cm. longo, 2-3 mm. cr., basi incrassato, curvulo; lamellis adnatis breve decurrentibus, inæquilongis, late subventricosus, pallidis v. flavidulis; sporis ellipsoideis, levibus, 5-7 \times 3,5 hyalinis.

Hab. ad stipites Palmarum oleiferarum, Kamerun Afr.

14. **Marasmius biformis** Peck in Rep. of the State Botanist, 1902, 163
p. 25. — Gregarius; pileo tenui, submembranaceo, campanulato vel fere plano, sæpe umbilicato, glabro, luteo vel pallide brunneo, striatulo, in sicco pallide griseo, ruguloso striato, 8-16 mm. diam.; lamellis stipatis, adnatis, ad stipitem conjunctis, griseis, cremeo-luteo-tinctis; stipite filiformi, farcto vel subcavo, pubescenti, brunneo, in sicco cinereo, interdum basim versus brunneo, 2,5 cm. longo, 1 mm. crasso.

Hab. in Coniferis, Sandlake, Amer. bor.

15. **Marasmius albo-farinaceus** P. Henn. in Engl. Bot. Jahrb. 1901, 164
p. 49. — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, campanulato, obtuso v. centro umbilicato-depresso obscuriori, radiato striato v. subplicato, incarnato, 2-4 cm. diam.; stipite fistuloso, subcorneo-corticato, gracili, fusco-brunneo, albido, pulverulento, subtomentosulo, 5-7 cm. longo, 1,5-2 mm. cr.; lamellis adnatis inæquilongis, confertis, angustis, albidis, ca. 1 mm. latis.

Hab. ad folia putrida, Kamerun Afr.

16. **Marasmius subomphalodes** P. Henn. F. Indiæ or. II, in Hedw. 165

1901, p. 329. — Calopus; pileo membranaceo-tenaci e convexo expanso, centro depresso, infundibuliformi, levi, glabro, radiatim substriato 1-2 cm. diam., isabellino; stipite fistuloso, tenaci-corticato, gracili, cinnamomeo, levi, glabro, 2-4 cm. longo, 1-1,5 mm. cr., basi incrassato; lamellis decurrentibus, tenui-lanceolatis, ca. 1 mm. latis, pallide isabellinis; sporis haud conspicuis.

Hab. in herbis putridis, caespitosus, Saharanpur-Garden Indiæ orient.

17. *Marasmius reticulatus* P. Henn. in Engl. Bot. Jarb. 1901, p. 46. 165

— Syll. XVI; pag. 1112 (nomen). — Pileo tenui, membranaceo, translucente, campanulato, centro depresso 1,5-3 cm. diam., radiatim striato, cinereo; stipite fistuloso, corticato, tereti, aequali, testaceo, 4-7 cm. longo, 2-3 mm. cr.; lamellis adnatis, subdecurrentibus, distantibus, angustis substriiformibus, reticulato-convexis, sepiaceis.

Hab. ad folia putrida, Kamerun Afr.

18. *Marasmius pseudo-calopus* P. Henn. in Engl. Bot. Jahrb. 1901, 167

p. 46. — Syll. XVI, p. 1112 (nomen). — Pileo tenui membranaceo, convexo-plano, umbilicato-depresso, radiato-plicato, pallide flavo, 1,5-3 cm. diam.; stipite fistuloso, subcorneo, atro-brunneo pruinoso, tomentosulo, superne pallido levi, 1,5-3 cm. longo, 1 mm. cr., basi discoideo; lamellis sinuoso-adnatis, flavidulis, subconfertis, angustis ca. 0,7 mm. latis; basidiis clavatis, 18-24 \times 4,5-5,5, sporis subglobosis, levibus, 3,5 μ . diam. hyalinis.

Hab. ad ramos putres, Kamerun Afr.

19. *Marasmius pallide-sepiaceus* P. Henn. in Engl. Bot. Jahrb. 1901, 168

p. 48. — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, campanulato-expanso, obtuso, granuloso-squamuloso, pallide cinnamomeo, radiato-striato, 0,5-2 cm. diam.; stipite fistuloso, subcorneo, pruinoso, pallide brunneo, 0,5-1 cm. longo, 1-1,5 mm. cr., basi discoideo villosulo, e mycelio rhizomorphaideo, filiformi, atro oriente; lamellis subtriquetro-decurrentibus, distantibus, ventricosis, pallide sepiaceis; sporis globosis 3-3,5 μ . diam., hyalinis.

Hab. ad ramos putres, Kamerun Afr.

20. *Marasmius missangoënsis* Pat. Bull. Soc. Myc. 1902, p. 299. 169

Pileo primitus globoso, dein explanato, 2-10 cm. lato, tenui, membranaceo, glabro, rufo, margine sinuato, sulcis radiantibus, profundis, distantibus notato; lamellis paucis ventricosis, latiusculis, utrinque attenuatis, attingentibus, interstitiis latis, levibus; stipite procero, coriaceo, brunneo-atro, longitudinaliter striato, pruinoso, sursum attenuato, 12 cm. longo, 5-6 mm. crasso.

Hab. ad terram, Oubangui prope Missango (Dybowski). — *M. Schulmanni* P. affinis.

21. **Marasmius cerussatus** Pat. in Duss Enum. Cham. Guadel. 1903, 170 p. 46. — Pileo orbiculari, convexo, centro mamillato, sulcato-rugoso, tenui, membranaceo, glabro, opaco, cerussato-albo, margine crenulato; lamellis integris, vix confertis, albo-flavidis (in sicco), adnatis, intermixtis brevioribus, venis connectentibus nullis; stipite centrali, gracili, æquali, farcto, sordide albo, non pellucido, glabro, e mycelio membranaceo, albo, matricem ambiente oriundo.

Hab. ad ramos putres in silvis Pointe-Noire, Guadalupa (Duss). — Fungus 8-15 mm. alt.; pileus 6-8 mm. lat.; stipes 1 mm. cr.

22. **Marasmius resinosus** Peck — Syll. V, pag. 522. — var. **niveus** 171 Peck in Rep. of the State Botanist, 1902, p. 38. — Totus fungus albus, cetera ut in typo.

Hab. ad terram, Port Jefferson, Amer. bor.

23. **Marasmius testaceus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. 172 — Syll. XVI, pag. 1112 (nomen). — Pileo tenui, membranaceo, campanulato, centro umbilicato, atro-testaceo, pruinoso, radiato-striato sulcatoque, margine pallidiori 1-1,5 cm. diam.; stipite fistuloso, filiformi, corneo, pallido v. stramineo nitenti, glabro, 3-6 cm. longo, 1 mm. cr.; lamellis collariato-connexis, distantibus, sub-integris, lanceolatis, pallide testaceis.

Hab. ad ligna et folia putrida, Kamerun Afr.

24. **Marasmius thujinus** Peck in Rep. of the State Botanist, 1902, 173 p. 26. — Pileo membranaceo, hemisphærico vel convexo vel sub-umbilicato, subglabro, marginem versus striato, cinereo, lilacino picto, 2-3 mm. diam.; lamellis paucis, distantibus, adnatis, albis; stipite capillari, cavo, glabro, basi minute, sparse flocculoso, pallido, basi saepe brunneo.

Hab. in foliis dejectis Thujæ occidentalis, North Elba, Amer. bor.

25. **Marasmius tomentosipes** Peck in the Torr. Bot. Club. 1902, p. 71. 174 — Pileo tenui, convexo, dein subplano, plerumque umbilicato, glabro, margine striato, brunneo-luteo vel ferrugineo, dein in sicco brunneo, 1-3,5 cm. lato; lamellis angustis, subdistantibus, inæqualibus, arcuatis, decurrentibus, pallide luteis, interstitiis venosis; stipite tenui 2-4 cm. longo, circ. 1 mm. crasso, duro, elastico, cavo, nigro-brunneo, tomentoso; sporis ellipticis 6-7 × 3-4.

Hab. in silvis Coniferarum, Moscow, Idaho, Amer. bor. (L. F. HENDERSON).

26. **Marasmius amazonicus** P. Henn. F. Amaz. I in Hedw. 1904, 175 pag. 183. — Pileo membranaceo, convexo-applanato, umbilicato, sanguineo, pruinoso, radiatim subplicato, c. 6 cm. diam.; stipite fistuloso, tereti compresso, subcarneo, corticato, striatulo, pallide brunneo, usque ad 11 cm. long, 2-3 mm. cr.; lamellis valde distantibus, (c. 20) medio ventricosis, c. 6 mm. lat., utrinque angustissimis, subpliciformibus alutaceis; sporis subglobosis, hyalino-flavidulis, 1-guttulatis, 3-4 μ . diam.

Hab. ad ligna putrida, Juruá Miry, Amazonia (ULE).

27. **Marasmius clitocybiformis** P. Henn. F. Amaz. I in Hedw. 1904, 176 p. 182. — Cæspitosus; pileo carnosulo-membranaceo, sicco translucienti, rotundato, umbilicato depresso v. subinfundibuliformi, albedo, radiatim striatulo, 4-6 cm. diam.; stipite firmo lignescenti, tereti, æquali, levi, glabro, v. pruinoso, pallide fuscescenti, 5-7 cm. longo, 1,5-2 mm. cr., basi incrassato; lamellis decurrentibus, membranaceis, confertis, angustis, 1-1,5 mm. latis, pallide fuscescentibus; sporis haud conspicuis.

Hab. ad truncos putres, Rio Juruá, Miry, Amazonia (ULE). —

Hic *Clitocybæ infundibuliformi*, hinc *Mar. clitocyboidi* affinis.

28. **Marasmius superbus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 48. 177 — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, convexo, centro umbonato, ruguloso-venoso, atro-violaceo, radiatim sulcato plicatoque violaceo, 3-9 cm. diam., margine repando, apicibus plicarum albidis; stipite fistuloso corneo-corticato, tereti interdum contorto, levi, glabro rufo-brunneo, 4-12 cm. longo, 3-5 mm. cr.; lamellis sinuoso-adnatis v. subliberis, collariatis, distantibus, ventricosis, ca. 1 cm. latis, albidis.

Hab. ad ligna putrida, Kamerun Afr.

29. **Marasmius subimpudicus** P. Henn. in Engl. Bot. Jahrb. 1901, 178 p. 48. — Syll. XVI, pag. 1112 (nomen). — Pileo membranaceo, campanulato v. subconico, centro pallido v. umbilicato, ruguloso, 7-15 mm. diam., rufo-brunneo; stipite corneo, fistuloso, gracili, superne pallido, inferne castaneo nitenti, 2-8 cm. longo, 0,5-0,9 mm. cr.; lamellis adnatis, angustis, subconfertis, pallidis v. flavescentibus; sporis ellipsoideis, 5-6 \approx 3,5-4, hyalinis.

Hab. ad ligna vetusta, Kamerun Afr.

30. **Marasmius sub-Curreyi** P. Henn. in Engl. Bot. Jahrb. 1901, p. 48. 179 — Syll. XVI, p. 1113 (nomen). — Cæspitosus; pileo membranaceo, campanulato-expanso, centro obtuso-umbonato, flavo-lateritio, radiato-striatulo, 1,5-2 cm. diam., margine tenui, flaccido; stipite

filiformi, fistuloso, corneo, atro, brunneo-squamuloso, superne pallidiori, 2,5-4 cm. longo, 0,7-0,9 mm. lato; lamellis collariato-connexis, confertis, lanceolatis, inæquilongis.

Hab. ad folia putrida, Kamerun Afr.

31. **Marasmius ochraceo-niger** P. Henn. in Engl. Bot. Jahrb. 1901, 180 p. 47. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo-coriaceo campanulato, centro papillato, radiato-striato, ochraceo, pruinoso 1-1,5 mm. diam.; stipite filiformi, corneo, atro-castaneo, pruinoso, 2-5 cm. longo, 0,3 mm. cr.; lamellis collariato-connexis, paucis, ventricosus, pallide ochraceis.

Hab. in foliis putridis, Kamerun Afr.

32. **Marasmius geophyllus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. 181 — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, campanulato expanso, obtuso v. subdepresso, radiato, dense striatulo, cinereo-gilvo, centro obscuriori, 1-1,5 cm. diam.; stipite corneo, fistuloso, levi, glabro, superne flavo, inferne atro-castaneo, 1-2 cm. longo, 1-1,5 mm. tr. lamellis sinuoso-adnatis, inæquilongis, subconfertis, angustis, lanceolatis, cinereo-fusculis.

Hab. ad ligna putrida, Kamerun Afr.

33. **Marasmius Delilei** De Seyn. Bull. Soc. Myc. de France, 1901, 182 p. 225, tab. VIII^{bis} f. 2 (ex Delile). — Pileo demum umbilicato, depresso, membranaceo, lacteo, vetusto sordescente, margine reflexo striato; lamellis albis, latis, adnatis, remotiusculis, dimidiatis aut furcatis intermixtis; sporis oblongis basi acutis; cystidiis haud visis; stipite brevi, glabro, nigro, sursum albicante, sæpe excentrico, basi subbulbilloso.

Hab. in ramis; foliis, calamis pr. Montpellier Galliæ (DELILE, Icon. ined.). — Pileus 15-20 mm. lat.

34. **Marasmius cinereo-flavidus** P. Henn. in Engl. Bot. Jahrb. 1901, 183 p. 48. — Syll. XVI, pag. 1113 (nomen). — Pileo membranaceo, campanulato, centro obtuso rotundato v. depresso, levi, glabro ad marginem substriato, cinereo, 0,5-1 cm. diam.; stipite fistuloso, corneo, brunneo, 1,5-3 cm. longo, 0,5 mm. crasso, levi glabroque, basi albo byssaceo; lamellis adnato-decurrentibus, distantibus, lanceolatis, flavidis; sporis ellipsoideis, 4-5 \approx 3-3,5, hyalinis.

Hab. ad caudices emortuos, Kamerun Afr.

35. **Marasmius Puttemansii** P. Hen. F. S. Paul. III in Hedw. 1904, 184 p. 203. — Mycelio rhizomorphaideo, criniformi, repente, ramoso, atro; pileo submembranaceo, convexo radiato-plicato, atrocastaneo, opaco, medio discoideo umbonato, flavido, granuloso, papilla sub-

globosa v. *hemisphærica* grisea ornato, 3-5 mm. diam. stipite setiformi, corneo, atro, nitenti, levi usque ad 8 cm. longo, 0,2 mm. cr.; lamellis postice subcollariatis, distantibus, inæquilongis, anastomosantibus, ventricosis, usque ad 1 mm. latis, pallidis; basidiis clavatis; sporis subglobosis, hyalinis 2,5-3 μ diam.

Hab. ad folia putrida, Serra da Cantareira, S. Paulo Brasilie.

36. **Marasmius tosensis** P. Henn. Pilze Jap II in Hedw. 1904, p. 151. 185

— Pileo membranaceo subgelatinoso, convexo-campanulato, castaneo, levi, glabro 5-6 mm. diam.; stipite tereti corneo, atro brunneo, levi, glabro, c. 1,5 cm. longo, 0,5 mm cr.; lamellis adnatis, distantibus, (c. 10-14) ventricosis, acie obtusis, alutaceis; basidiis clavatis, 20 \times 4-5, sporis subglobosis, 3,5-4 μ . diam, episporio granulato-verrucoso v. subechinato, flavidulo; mycelio rhizomorphaideo, 20 cm. longo, 0,5 mm. cr. atro, ramoso.

Hab. ad ramos emortuos, Tosa, Tokano-Mura Japoniæ (A. AKISAWA). — Pileo subgelatinoso sporisque subechinatis mox dignoscenda species; a typo generis tamen nonnihil recedens.

37. **Marasmius amabilis** Har. et Pat. Journ. de Bot. 1903, p. 12. — 186

Pileo membranaceo, tenerrimo, primum campanulato, dein explanato, glabro, albido, venulis strictis, ramosulis cristatis e centro vix umbonato radiantibus notato; lamellis distantibus, strictissimis, integris ramosisve concoloribus; stipite corneo, cylindrico, levi, glabro, atro, apice pallidiori e basi alba tomentosa orto.

Hab. ad cortices *Monimia* anisatæ putres in silvis prope Meo-Nov, Nova Caledonia (BERNIER). — Totus 4-10 cm. altus; pileus 2,5 cm. lat.; stipes 1 mm. cr.; lamellæ 0,5 mm. latæ. Ad Sect. *Chordales* spectat.

38. **Marasmius reniformis** P. Henn. in Engl. Bot. Jahrb 1901, p. 45. 187

— Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, reniformi, striatulo, tessellato-subrugoso, niveo, pruinoso, 8-15 mm. diam. stipite laterali, brevi, pallide brunneo 0,6-0,8 cm. longo crassoque, discoideo-affixo; lamellis sinuoso-adnatis, paucis, distantibus, anastomosantibus, pallidis; sporis ovoideis, 5-6 \times 3,5, hyalinis.

Hab. ad ligna putrida, Kamerun Afr.

39. **Marasmius discopus** Masee in Bot. Tidsskrift-Copenhagen 1902, 188

vol. 24, pag. 214. — Pileo convexo-expanso, demum disco depresso, udo, striato, lurido, margine incurvo 1-2 cm. lato; lamellis liberis, angustis, confertis, albidis; sporis hyalinis 5 \times 3; stipite tenaci, fusco, incurvo, basi disco applanato albicante adnato, 3-4 cm. longo.

Hab. ad terram, prope Klong Son, Siam Asiæ merid. *Mar. stylobati* Berk. et Curt. affinis.

40. **Marasmius flabellatus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 46. 189

— Syll. XVI, p. 1112 (nomen). — Pileo tenui-membranaceo, flabelliformi v. palmatifido-lobato, pleuropode, radiatim striato, albidoflavescente, 2-6 cm. diam., margine crenato v. varie lobato; stipite plus minus elongato v. obsoleto, late compresso usque ad 2 cm. longo, 3 mm. lato, concolori, discoideo affixo; lamellis decurrentibus, inæquilongis, subconfertis 1-1,5 mm. latis, pallidis; sporis subglobosis, ellipsoideis, levibus, 3,5-4 × 3-3,5, hyalinis.

Hab. ad caudices putres, Kamerun Afr.

41. **Marasmius calosporus** (Pat.) Sacc. et D. Sacc. *Crinipellis calo-* 190

sporus Pat. in Duss Enum. Champ. Guadel. 1903, p. 44. — Pileo sessili, resupinato, primitus pezizoideo, dein hinc fissus et fere dimidiatus, tenuissimo, membranaceo, albo, glabrescente, margine levi v. sulcato; cutis cellulis stratosi, tenacibus, prælongis, crasse tunicatis, 4-5 µ. diam.; lamellis parvis (5-7) albo-flavidis, distantibus, venis nullis connexis, tenuibus, integris, e puncto excentrico radiantibus; cystidiis clavatis, crasse tunicatis, incoloribus, superne sæpe incrustatis, 33 × 10-15; sporis ovoideis, levibus, 10 × 7, hyalino-roseolis, guttulas nonnullas lucidas continentibus.

Hab. catervatim in ramulis putridis Clibadii erosi, in silvis Bains-Jaunes, Guadalupa. — Minutus vix 2 mm. latus, *M. asperifolius* et *M. nidulus* proximus.

LENTODIOPSIS Bubak Hedw. 1904, p. 196 (Etym. *Lentodium* et *Lentinus*, cui affinis). — Pileus carnoso-coriaceus, exsiccando persistens in stipitem centralem abiens; lamellis tenuibus, longe decurrentibus deorsum venose-connexis. Velum ad stipitem annulatim sedens v. radiatim diffractum. Sporæ cylindrææ, hyalinæ.

1. **Lentodiopsis albida** Bubak Hedw. l. c. — Pileis albis, solitariis, 191

2-3 cm. latis, 0,5-1 cm. alt., glabris; stipite cum pileo continuo, 1,5-2 cm. alto, 9,8-1,3 cm. cr. cylindræo, farcto, levi, cum pilei margine velo modo annuliformi modo laciniato connexo; lamellis tenuibus, usque ad medium stipitis decurrentibus, inferne reticulatim junctis, siccis flavidis; sporis breve cylindræis, 10-14 × 3,5-4,5, hyalinis, crasse 1-guttatis, apice rotundatis, basi tenuatis v. oblique apiculatis.

Hab. ad radices vivas Abietum pr. Tabor Bohemiæ.

LENTINUS Fr. (incl. *Pano* p. p.). — Syll. V p. 571 et 614, IX p. 71 et 76, XI p. 39 et 41, XIV p. 117 et 122, XVI p. 61.

1. **Lentinus radicosus** Pat. Champ. des colon. franc., in Bull. du 192
jard. colon. 1902, n. 2, p. 264, tab. II, fig. 3. — Pileo coriaceo, tenui, albido-rufo, 15 cm. lato, explanato, margine involuto, infundibuliformi, nec sulcato, nec striato, sed tomentosulo; lamellis fuscis, angustis, integris, valde adnatis, decurrentibus; stipite brevi, 2 cm. basi attenuato, summo 2 cm. lato, rufo-pallido, velutino, superne striato (in proximitate lamellarum), basi radicato, duro, cylindrico, strigoso.

Hab. in terra ferruginosa Novæ-Caledoniæ. — A *L. vellereo* stipite obconico et radice elongata differt.

2. **Lentinus cordubensis** Speg. Mycet. argent. ser. II, 1902, p. 50. — 193
Pileo pallide avellaneo, hemisphærico, 5-8 mm. diam., primo centro umbonatulo dein plano, postremo minute umbilicato, obsolete concentrice subsulcato, in juventute pallide avellaneo adpresse subpaleaceo-villoso, margine integro non sulcato; lamellis subconfertis antice acutis, postice adnato-sinuatis, albidis, aridis, 0,51 mm. lat., acie sæpius minute eximieque denticulatis; stipite erecto, gracili, farcto, pileo concolore, 20-30 mm. longo, 0,5 mm. cr., in sicco longitudinaliter ruguloso; sporis ovatis 5-6 \times 2,5-3, apice obtusiusculis, basi inæquilateraliter rostellatis, levibus non vel 1-guttulatis, hyalinis; basidiis clavulatis, obtusis, 25-30 \times 5-7; cystidiis non visis.

Hab. ad ramenta inter folia dejecta in silvulis prope Cordoba in Argentina (T. STUCKERT). — Species habitu *Marasmiis* peraffinis sed pileo stipiteque villosis lamellis acie denticulatis inter *Lentinos* potius recensenda

3. **Lentinus clitocyboides** P. Henn. in Engl. Bot. Jahrb. 1901, p. 45. 194
— Syll XVI, p. 1113 (nomen) — Pileo carnoso-lento, infundibuliformi, brunneo cinerescente, subsquamuloso, centro pallidiori 4-6 cm. diam.; stipite farcto, tereti, concolori, tomentosulo, 3-5 cm. longo, 0,5-1 cm. cr.; lamellis decurrentibus, confertis, angustis, lineolatis, ca. 1 mm. latis, pallide cinereis v. flavidulis acie integris; sporis subglobosis 5-6 μ diam. hyalinis.

Hab. ad cortices putres, Kamerun Afr.

4. **Lentinus americanus** Peck in the Torr. Bot. Club, 1902, p. 72. — 195
— Pileo exili, convexo, fere plano, centro depresso vel subinfundibuliformi, glabro, irregulari et margine lobato, pallido, 2-2,5 cm. lato; lamellis subadnatis, margine dentato-laceratis, subdecurrentibus, albidis; stipite brevi, 1-1,5 cm. longo, 2-4 mm. crasso, sub-

æquali, solido, brunneo v. rufobrunneo strigoso, basi villosa; sporis late ellipticis vel subglobosis, $6 \approx 5-6$.

Hab. sparse vel gregarie, ad terram, Volmer, Idaho, Amer. bor. (L. F. HENDERSON).

5. *Lentinus eradicatus* Pat. Champ. des colon. franc., in Bull. du 196
jardin. colon. 1901, n. 2, p. 264. — Pileo rubro, tenui, coriaceo-
membranaceo, infundibuliformi, nec striato nec zonato, superne ve-
lutino, margine integro et reflexo; lamellis rufo-rubris, angustis,
adnatis, integris, decurrentibus; stipite gracili, erecto, cylindraceo,
velutino, rufo-pallido, superne et basi paullulum indurato, non ra-
dicato.

Hab. in truncis emortuis, Nova Caledonia. — Totus 25 cm.
altus. Affinis *L. radicato* Cooke.

6. *Lentinus flavidus* Massee in Kew Bull. 1901, pag. 163. — Pileo 197
cyathoideo, membranaceo-coriaceo, 5-8 cm. diam., albido-flave-
scenti, glabro, margine incurvo, striatulo; lamellis angustis, con-
fertis, attenuato-decurrentibus, acie integris; stipite recto, densis-
sime velutino-hispidulo, brunneo, 2 cm. longo, 1 cm. crasso, e
sclerotio subgloboso 4-5 cm. diam., extus glabro, castaneo-fusco,
intus albido enascenti; sporis ellipticis, $10 \approx 4$.

Hab. in terra humosa, Old Calabar Africae occident.

7. *Lentinus Araucariæ* Har. et Pat. Journ. de Bot. 1903, p. 11. — 198
Pileo orbiculari, excentrico, profunde umbilicato, brunneo-casta-
neo, pruinoso, squamis distantibus erectis, crassis, substellato-py-
ramidatis, macula nigra insidentibus, margine incurvo pectinatim
striato; stipite excentrico, lignoso, albido-rufescente, subæquali e
basi effusa atra assurgente, glabriusculo, apicem versus annulo ni-
gricante frustulatim fracto ornato; lamellis decurrentibus, distan-
tibus, simplicibus, acie integra, pileo subconcoloribus.

Hab. ad truncos Araucariæ, Tendea, Nova Caledonia (BER-
NIER). — Pileus 5-6 cm. lat.; stipes 2-4 cm. long., 6 mm. cr.;
lamellæ 2 mm. latæ.

8. *Lentinus lamelliporus* Har. et Pat. Champ. rec. au Japon, in Bull. 199
du Mus. d'hist. nat. 1902, n. 2, p. 130. — Lignicola, cæspitosus;
stipite nullo v. brevissimo, crasso, excentrico, in pileum firmo-
coriaceum dilatato, antice elongatum, postice multo brevior, su-
perne acuto, integro, subtus vix recurvato, sinuoso, superiori
facie alba, roseola, glabra, levi, medio depressa, postice marginata;
hymenio albo, in media parte inferiori in tubulos, favoloideos mu-
tato, dissepimentis tenuibus integris leviterque denticulatis, in me-

dia superiori parte in lamellas e tubulis ortas expanso, antice attenuatas, brevioribus immixtis, 4-5 mm. latas, acie distincte denticulatas acutasque, verrucis emergentibus numerosissimis.

Hab. ad truncos, Tokyo Japoniæ (HARMAND).

9. *Lentinus cochlearis* (Pers.) Bres. Fungi polonici in Ann. Mycol. 1903, p. 69, *Lentinus suavisissimus* Fr. Syn. Lent. p. 13, *Lentinus anisatus* P. Henn. in Sydow, Mycoth. March. n. 4702, *Agaricus cochlearis* Pers. Myc. Europ. III, p. 33, n. 36, *Panus cochlearis* Fr. Hym. Eur. p. 489. — Syll. V, p. 622. — Micheli Gen. pl. t. 65, f. 5-6. — Pileo carnosolento, dimidiato, subintegro vel integro, in dimidiatis subreniformi, spathulato vel ovato-subspathulato, in integris convexo-umbilicato demum cyathiformi vel infundibuliformi, margine primo involuto dein revoluta, hirtello vel pubescente, mox glabro, levi vel etiam radiato-striatulo, stramineo-lutescente, centro sæpe vel rarius ex integro fulvo, demum pallescente, 1-3 cm. lato; lamellis ex albido stramineis, postice anastomosantibus, acie fimbriato-denticulata, ætate subintegra; stipite solido variæ longitudinis, e pubescente glabrato, pallido, sæpe basi vel etiam ex integro fulvo, 5-15 mm. longo, 3-4 mm. crasso; carne alba, carnosolenta, odore grato, aniseo prædita; basidiis clavatis, 20-28 \times 6-7; sporis hyalinis, subcylindraceis, uno latere subcompressis, 7-9 \times 2-3.

Hab. ad ramos Salicis capræ in Polonia. — Hujus speciei specimina vidi ex integro fulva, forma cum iconibus a cl. Micheli l. c. editis prorsus consona, ideoque de identitate vix dubito, quæ etiamsi colore diverso omnino specificæ cum specie Henningiana l. c., cujus specimina comparavi, conjungenda. Species friesiana huc quoque ducenda absque dubio, nam species hæc quoad formam et colorem valde variabilis etiam in speciminibus gregatim ad eundem ramum nascentibus (BRESADOLA l. c.).

PANUS Fr. — Syll. V p. 614, IX p. 76, XI p. 41, XIV p. 122.

1. *Panus stipticus* (Bull.) Fr. — Syll. V, p. 622. — var. *alba* Bresadola Fungi polonici, in Ann. Myc. 1903, pag. 69. — A forma typica differt colore ex integro candido, lamellæ tamen exsiccando cremeæ evadunt. Cetera omnia concordant.

Hab. ad truncos Betulæ albæ, in Polonia.

2. *Panus luteolus* Massee in Bot. Tidsskrift-Copenhagen 1902, vol. 24, 201 pag. 215. — Sessilis, imbricatus; pileo fere membranaceo, lento, subreniformi, tomento flavo obducto, 3-5 cm. longo; lamellis an-

gustissimis, confertissimis, pallidis, acie acutis; sporis hyalinis 5×3 .

Hab. in lignis emortuis prope Klong Prao, Siam Asiæ merid.
— *Pano aureofulvo* Cooke affinis.

3. **Panus spathulatus** Massee in Bot. Tidsskrift-Copenhagen 1902, 202
vol. 24, p. 215. — Cæspitosus; pileo tenui, lento, pallido, suborbiculari seu reniformi, margine arcte involuto, albido, 3-5 cm. lato; lamellis confertissimis, angustissimis, acie integris, albidis; sporis hyalinis $4 \times 2,5$; stipite exacte laterali, elongato, cylindrico, fibroso-lignoso, pileo concolori, 4-6 cm. longo

Hab. ad terram prope Klong Son, Siam Asiæ merid.

4. **Panus michailowskojensis** (P. Henn.) Sacc. et D. Sacc. *Lentinus* 203
P. Henn. in Hedw. 1904, p. 67. — Pileo membranaceo-coriaceo, subapode, conchiformi vel subflabellato, convexo, postice affixo, brunneolo, basi isabellino, hyalino granuloso, pilosulo, ad marginem radiato-striato, 0,5-1 cm. lato, 4-8 mm. longo; lamellis ad basim radiatis, membranaceo-coriaceis, inæquilongis, angustis, utrinque attenuatis, medio 1-1,5 mm. latis, pallide alutaceis, acie integris, acutis; basidiis clavatis 8-10 \times 3,5; sporis subcylindraceis vel clavatis, obtusis, hyalinis, 3,5-4 \times 1,5.

Hab. in ramis Alni incanæ, Michailowskoje, in ditione Mosquensi Rossisë.

XEROTUS Fr. — Syll. V p. 630, IX p. 78, XI p. 41, XIV p. 123, XVI p. 67.

1. **Xerotus martinicensis** Pat. in Duss Enum. Champ. Guadel. 1903, 204
p. 48. — Mesopus; pileo convexo, centro papillato, 1-2 cm. diam., subtenui, secco, rigidulo, albo-brunneolo, ruguloso, pulverulento, ad centrum plicato-sulcato, margine acuto, integro; stipite solido, duro, gracili, 1-2 cm. long., 1-1,5 mm. cr., cylindrico, regulari, brunneo-rufo, breviter ruguloso-pubescente; basi vix incrassato; lamellis parvis (8-12) distantibus, rigidulis, brunneolis, crassiusculis, integris, acie obtusis circa stipitis apicem insertis, non decurrentibus, latis, intermixtis brevioribus, interdum venæformibus.

Hab. ad ramos putres Avertrhoæ Bilimbi in Guadalupa et Martinica (Duss). — Habitus marasmiodeus.

2. **Xerotus changensis** Rostr. in Bot. Tidsskrift-Copenhagen 1902, 205
vol. 24, p. 211. — Pileo coriaceo, rigido, tenui, sessili, dimidiato, opaco, atro, pulverulento, radiatim sulcato, 2-3 cm. lato, margine initio integro, dein lobato, subtus rufo, plicis radiantibus, distantibus, integris.

Hab. ad truncos Siam Asiæ merid.

3. *Xerotus echinosporus* P. Henn. F. Amaz. I in Hedw. 1904, p. 182. 208
 — Pileo coriaceo, spathulato-erecto, v. anguste flabellato, substipitato, alutaceo-brunneo, levi, pruinoso, 1-1,5 cm. longo, 3-5 mm. lato, basi albido-byssino; lamellis coriaceis, decurrentibus, distantibus, dichotomis, acie obtusa crassis, alutaceis; basidiis clavatis, 20-25 × 6-8; sporis subglobosis 5-6 μ . cr., aculeato-verrucosis, hyalino-flavidulis.

Hab. ad terram detriticam, Rio Madeira pr. Marmellos, Amazonia (ULE). — Forma spathulata sporisque verrucosis pradi-
 cta species.

LENZITES Fr. — Syll. V p. 637, IX p. 78, XI p. 42, XVI, p. 67.

1. *Lenzites betulina* (L.) Fr. — Syll. V, p. 638. — var. *radiata* Peck 207
 in Rep. of the State Botanist, 1901, p. 965. — Pileo tenui, 2 mm. crasso, 3,5-7,5 cm. lato, coriaceo, velutino-piloso, anguste plurizonato, radiato-striato, brunneo; lamellis inæqualibus, raro furcatis, non anastomosantibus, griseo-albidis vel brunneolis.

Hab. in truncis Fagi, Hague, Amer. bor.

2. *Lenzites Gussonei* Scalia Fungi Sicilia orient. ser. I, 1900, p. 21. 208
 — Pileo suberoso, explanato v. undulato, ochroleuco, squamulis adpressis, melleis obsito; lamellis concoloribus undulatis, versus stipitem dichotomis anastomosantibus, reticulum tenuem, fuscum, ostendentibus; stipite crasso, brevi, alutaceo-fusco, farcto intus stuposo.

Hab. in truncis Cytharexyli subserrati et Yuccæ alofoliæ, Catania, Sicilia, in horto botanico.

3. *Lenzites sibirica* Karst. Fungi nov. Loennb. 1904, p. 3 (Finska 209
 Vetensk. Soc.). — Pileo coriaceo, rigido, dimidiato, plano postice gibboso, cervino, fibrillis innatis radiantibus, teneris oblecto, obscurius zonato, intus pallescente, margine acutiusculo, inæquali, concolore, 3-5, cm. lato; lamellis crassiusculis, inæqualibus, poroso-anastomosantibus, sordide pallidis, demum fusciscentibus.

Hab. ad truncum arborum frondosarum in regione Baicalensi. Listoinitschnoje Sibiriae Aug. 1902 (O. A. F. LÖNNBOHM).

Sect. 2. Rhodosporæ.

VOLVARIA Fr. — Syll. V p. 656, IX p. 82, XI p. 43, XIV p. 124, XVI, p. 69.

1. *Volvaria submyochroa* Clem. in Bot. Surv. Nebr. 1901, p. 10. — 210

Pileo subcarnoso, convexo, subplano, parce umbonato, lucenti, in umbone fibrillis sericeis dense vestito, margine substriato, 3-4 cm. crasso, avellaneo-cinereo; stipite carnosus, æquali, solido, albo, lucenti, apice farinoso, 3-4 cm. longo, 5 mm. crasso; volva minuta, hirsuta 2-3-fida, concolore; lamellis liberis, remotis, subconfertis, ventricosis, initio carneis dein isabellinis; sporis ellipsoideis, 1-guttulatis, levibus, 6-7 \times 4.

Hab. ad terram humidam, University Campus, Lincoln Americæ borealis.

2. **Volvaria concinna** Clem. in Bot. Surv. Nebr. 1901, p. 9. — Pileo 211 submembranaceo, expanso, subumbonato, levi, pallide avellaneo 0,5-1,5 cm. diam.; stipite gracillimo, concolore, 0,5-1,5 cm. 1-2 mm.; volva minuta valde adpressa; lamellis liberis, roseis; sporis ovato-ellipticis, granulosus vel guttatis, levibus, roseis, 8-11 \times 5-7; cystidiis nullis.

Hab. ad terram ad flumen Humboldt et Marysville, Kansas, Amer. bor.

3. **Volvaria liliputiana** P. Henn. Fungi Indiæ or. II, in Hedw. 1903, 212 p. 333. — Parvula; pileo convexo campanulato medio depresso obtuse umbonato, albido, subvelutino, margine obsolete striatulo, 0,5-1 cm. diam.; stipite fistuloso, gracili, levi, glabro, albido 1-1,5 cm. longo, vix 1 mm. cr., volva membranacea, lacerato-fissa; lamellis liberis, subconfertis, flavido-roseis; sporis ovoideo-ellipsoideis, 1-grosse guttulatis, levibus, 4-5 \times 4, basi apiculatis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

ANNULARIA Schulz. — Syll. V p. 668, IX p. 82, XI p. 43, XIV p. 125.

1. **Annularia baicalensis** Karst. Fung. novi Loennb. 1904, pag. 2 213 (Finska Vetensk. Soc.). — Pileo carnosus, sat crasso, convexo, obtuso, glabro, levi, alutaceo (in statu sicco), circiter 7 cm. lato; stipite solido, æquali, glabro, concolore, circiter 7 cm. longo et 2 cm. crasso; annulo membranaceo; lamellis liberis, confertissimis, angustissimis, æqualibus, carneis; cystidiis mellis; basidiis clavulatis 20 \times 4.

Hab. in regione Baicalensi Sibiriae (O. A. F. LÖNNBOHM).

PLUTEUS Fr. — Syll. V p. 665, IX p. 83, XI p. 44, XIV, p. 125, XVI p. 72.

1. **Pluteus cervinus** (Schäff.) Quél. Syll. V, p. 665. — var. **griseo-vi-** 214

ridis P. Henn. Fung. S. Paul. III. Hedw. 1904, p. 204. — Pileo carnosus, convexo, explanato, centro obtuso, levi, glabro, subglutinoso, margine striatulo, griseo-viridi, 5-7 cm. diam; stipite solido, cylindraceo, pallido, levi, glabro, 4-7 cm. long., 3-5 mm. cr. basi incrassato; lamellis liberis confertis, ventricosis, 3-4 mm. latis; flavido-incarnatis; sporis ellipsoideis, 1-guttulatis, carneis, $4-5 \times 4$; cystidiis lageniformibus, apice 2- v. 3-dentato-hamatis, $40-60 \times 15-20$.

Hab. ad caudices, Serra de Cantareira, S. Paul. Brasilæ. —

Præcipue colore pilei et sporis paullo minoribus a typo recedit.

2. **Pluteus flavo-fuliginus** Atkinson in Journ. of Mycol. 1902, p. 117. 215

— Sparsus, 5-7 cm. altus; pileo ovoideo, convexo, interdum subumbonato, initio intense flavo-fuligineo, minute tomentosulo, dein pallidiori et centrum versus plus minusve fuligineo-radiato, margine non striato, 4-5 cm. lato; carne alba; lamellis liberis, utrinque rotundatis, 3-5 mm. latis, non stipatis, intense carneis; basidiis clavatis, 4-sporis, $30-35 \times 6-7$; sporis ovoideis, levibus carneis, $5-7 \times 4-6$; cystidiis numerosis, fusoides, apice obtusis $80-100 \times 12-20$ hyalinis; stipite pallide carneo, levi, solido, dein fistuloso, 4-6 mm. crasso.

Hab. in lignis putridis, in silvis Coy Glen, Ithaca N. Y. Americæ borealis.

3. **Pluteus roseipes** Höhnelt Fragmente zur Mykologie, 1903, p. 24. 216

— Pileo carnosulo, margine submembranaceo, subumbonato, explanato ad 5-6 cm. lato, fuliginoso, centro obscuriore, subtiliter sericeo et velutino-flocculoso, margine leviter striato; lamellis attingenti-liberis, confertissimis, roseis, 5 mm. latis, acie subtiliter albo-fimbriata; stipite solido, tereti, intus extusque roseo, levissimo, æquali, basi leviter incrassato; sporis globosis, levibus, $6-8 \times 7$, griseo-incarnatis; cystidiis numerosis, fasciculatis, clavatis, obtusis vel apiculatis, usque 60×16 , membrana subtili, solum versus apicem incrassata.

Hab. in pratis subalpinis prope Puchberg ad montem Schneeberg Austriæ inferioris.

4. **Pluteus floccifer** Boud. in Bull. Soc. Myc. de France 1902, n. 2, 217

tab. 6, fig. 2. — Pileo convexo-campanulato, 3-4,5 cm. diam., eximie hygrophano, parum carnosus, brunneo, siccitate fulvo, ad marginem longe striato, undique floccis acutis filamentosis, albis, subtiliter consperso, toto 10-12 cm. alto; lamellis liberis, latiusculis, diu albidis, dein rufo-ferrugineis; stipite elongato, sericeo, striato,

plus minusve torto, sed colore pallide rufescente leviter tincto, ad basim paululum incrassato; sporis ovatis, guttulado-granulosis, sub lente pallide ferrugineis, magna copia rufo-fulvis.

Hab. ad terram graminosam, in montibus Juranis Galliæ.

5. *Pluteus Termitum* P. Henn. F. Amaz. I in Hedw. 1904, p. 183. 218

— Pileo carnosulo, campanulato, vertice umbonato-obtuso, brunneolo, radiatum substriato, albido, 3-4 cm. diam.; stipite fistuloso tereti, substriato, levi, basi interdum curvulo, incrassato, pallide brunneolo, 4-5 cm. longo, 2-3 mm. cr.; lamellis liberis, confertis, ventricosus, 3 mm. latis, pallidis dein flavidis; sporis ellipsoideo-fusoideis, utrinque acutiusculis, 1-2-guttulatis, episporio pallide incarnato, levi, 7-10 \approx 4-5.

Hab. ad excavationes Termitum, Fortaleza Amazoniæ. — Nonnullis notis ad *Lepiotas* nutat.

6. *Pluteus bulbipes* P. Henn. in Engl. Bot. Jahrb. 1901, p. 54. — 219
Syll. XVI, p. 1113 (nomen). — Pileo submembranaceo, carnosulo.

convexo obtuso, subsquamuloso granuloso, radiato-striato, brunneo-olivaceo 3-4 cm. diam.; stipite subfarcto, tereti, striatulo, pallide brunneo, 4-6 cm. longo, 3-4 mm. crasso, basi bulbiloso, 6-8 mm. incrassato; lamellis sinuoso-adnatis 2-2,5 mm. latis, confertis, albidis dein flavo-carnescentibus; sporis subglobosis, intus granulatis, 4-5 diam. episporio levi, flavo-carnescente.

Hab. ad terram, Kamerun Afr.

7. *Pluteus citrino-carnescens* P. Henn. in Engl. Bot. Jahrb. 1901, 220
p. 54 — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo carno-

sulo, convexo expanso, radiato-striato, citrino 2,5-5 cm. diam., centro umbilicato v. subpapilloso, venoso-rugoso fuscidulo; stipite subfarcto, tereti, levi, glabro vel striatulo, incarnato, 2-5 mm. longo, 2-4 mm. crasso; lamellis sinuoso-adnatis v. subliberis, confertis, 3-5 mm. latis, roseo-carneis; cystidiis subulatis ca. 25-30 \approx 8-9; basidiis clavatis 18-24 \approx 5-7; sporis subglobosis v. ellipsoideis 1-grosse guttulatis, levibus, flavo-carnescentibus, 4,5-6 \approx 4-5.

Hab. ad terram, Kamerun Afr.

ENTOLOMA Fr. — Syll. V p. 679, IX p. 83, XI, p. 44, XIV p. 126, XVI p. 76.

1. *Entoloma clypeatum* (L.) — Qué! — Syll. V, p. 394. — var. *Par-* 221
thelii Star. in Verhandl. d. bot. Ver. Brandenb. 1903, p. 91. —

A typo imprimis differt sporis angulosis, 11-14 \approx 8-11, 1-guttatis.

Hab. ad terram Fuhnehang, Anhalt Germaniæ.

2. *Entoloma graveolens* Peck Rep. of the State bot. 1899, p. 844, ²²²
tab. II, fig. 1-7. — Pileo 5-10 cm. lato, firmo subfragili, convexo, sæpe irregulari, glabro, margine flocculoso, albido, interdum violaceo tincto; carne alba; sapore odoreque ingrato; lamellis angustis, stipatis, adnatis, griseo-albis pallide salmoneis; stipite 3,5-10 cm. longo, 16-24 mm. crasso, firmo, solido, basi bulboso tomentoso, superne lanuginoso, albo; sporis pallide roseis, ellipticis 6-7,5 \times 3,5 sæpe 1-nucleatis.

Hab. in silvis Meadowdale, Amer. bor.

3. *Entoloma Farrahi* Mass. et Cross. in the Naturalist 1904, pag. 1, ²²³
tab. I, fig. 1-4. — Pileo cylindrico-ovato dein campanulato, subrepando, umbonato, levi, sericeo-fibrilloso, secco, atro-cæruleo, circa marginem pallidiore, 6-8 cm. diam.; lamellis latis, sinuato-adnaxis, ventricosis, subdistantibus, carneis; stipite solido, ventricosus, glabro, pileo concolori, basi albo, 5-7 cm. longo, 1,5-2 cm. crasso; sporis oblongo-ellipticis, levibus, carneis 10 \times 4,5-5; cystidiis cuspidatis, ventricosis, 50-60 \times 12-15.

Hab. in graminosis Helmsley Britanniae (J. FARRAH).

4. *Entoloma variabile* Peck Rep. of the State bot. 1900, pag. 145, ²²⁴
tab. F, fig. 17-27. — Pileo conico, ovato vel subcampanulato, umbonato interdum subdepresso vel apice subumbilicato, parce fibrilloso, pallide luteo dein rufo-brunneo, margine luteolo, 16-50 mm. lato; lamellis modice stipatis, ascendentibus, acie erosis, antice latis, albidis, dein pallide roseis; stipite filiformi, æquali, cavo, subfibrilloso-striato albido vel pallido, basi tomentoso 7,5-12,5 cm. longo, 2-4 mm. crasso; sporis angulosis, 1-nucleatis, 10-12,5 μ . diam.

Hab. in Sphagno, Floodwood, Amer. bor.

5. *Entoloma nigricans* Peck in the Torr. Bot. Club. 1902, p. 72. — ²²⁵
Pileo exili, convexo, irregulariter expanso, centro depresso, sericeo-fibrilloso, intense griseo vel nigrescenti, cuticula radiato-erumpenti, inodoro, 2,5-4 cm. diam.; stipite æquali sericeo-fibrilloso, initio firmo, dein cavo, 2,5-5 cm. longo, 4-8 mm. crasso, albo et nigro zonato, interdum superne furfuraceo; lamellis latis, subdistantibus, sinuatis, adnatis, rufo-roseis; sporis roseo-carneis, angulosis, uninucleatis 8-12 μ . diam.

Hab. ad terram in silvis prope St. Louis, Mo, Amer. bor. (N. M. GLATFELTER).

6. *Entoloma Peckianum* Burt in Peck Rep. of the State Bot. 1900, ²²⁶
p. 146, Tab. F, fig. 9-16. — Pileo tenui 16-30 mm. diam., co-

nico dein convexo vel subcampanulato, subhygronhano, intense brunneo, umbonato, margine obscure rugoso, minute fibrilloso; lamellis adnatis, stipatis, ascendentibus, latis, abrupte rotundatis albidis, dein salmoneis; stipite carnosus, filiformi, æquali, cavo, fibrilloso-striato, pallide brunneo, sæpe basi albicante, intus albidus 5-10 cm. longo, 2-4 mm. crasso; sporis angulosis 1-nucleatis 10-12,5 \times 7,5-10.

Hab. in Sphagno, Floodwood, Amer. bor. — *Habitus Nolanæ infulæ* Fr.

7. *Entoloma strictius* Peck — Syll. V, pag. 698. — var. *irregulare* ²²⁷
Peck Rep. of the State bot. 1899, p. 856. — Pileo exili, fragili, campanulato convexo vel fere plano, umbonato vel non, sæpe irregulari, intense brunneo et indistincte striatulo, in sicco griseo-brunneo; lamellis initio griseis, maturitate pallide roseis; stipite breviusculo, sæpe irregulari, sericeo-fibrilloso, plano vel cavo, lucenti, albo.

Hab. in graminosis, Albany, Amer. bor.

8. *Entoloma luteum* Peck Rep. of the State bot. 1900, p. 146, t. F, ²²⁸
fig. 1-8. — Pileo 12-20 mm. lato, conico vel subcampanulato, obtuso, apice squamuloso, luteo vel fuligineo-luteo dein sæpe griseo; lamellis ascendentibus, modice stipatis, latis, albidis dein pallide salmoneis; stipite filiformi, æquali, cavo, subfibrilloso-striato, pileo concolori, basi mycelio albo obvoluto, 7,5-10 cm. longo, 2-4 mm. crasso; sporis angulosis, subquadratis, 10-12 μ . diam.

Hab. in silvis, Floodwood, Amer. bor.

CLITOPILUS Fr. — Syll. V p. 698, IX p. 85, XI p. 45, XIV p. 128, XVI p. 77.

1. *Clitopilus noveboracensis* Peck — Syll. V, p. 702. — var. *subviolaceus* ²²⁹
Peck Rep. of the State bot. 1900, p. 165. — Pileo tenui, in statu juvenili subplano dein centro depresso, pallide griseo-violaceo, sæpe obscure zonato vel concentrice maculato, margine valde involuto; carne albida, sapore farinaceo; lamellis decurrentibus, pallidis dein cremeo-luteolis; stipite pallido, basi albidotomentoso, interdum excentrico.

Hab. in silvis, inter folia dejecta Floodwood, Amer. bor. — Var. *umbilicatus* Peck l. c.: pileo subplano, umbilicato, albo vel albidus; carne alba; sapore aquoso; stipite brevi, alb. tomentosus vel pilosus, rivulosus vel concentrice rimosus. In silvis, Floodwood, Amer. bor.

2. *Clitopilus sphaerosporus* Peck Bull. Torr. Bot. Cl. 1984, p. 179. 230

— Pileo carnosio sed tenui, subplano, margine involuto, v. curvo, umbonato v. leviter centro depresso, sicco, minute tomentoso-pubescenti, atro-griseo v. nigrescenti-brunneo; carne alba; lamellis tenuibus, angustis, confertis, inæqualibus, leviter decurrentibus, albidis, roseo-tinctis; stipite æquali v. sursum leviter tenuato, solido, firmo, pileo concolori, basi tomento mycelico albo vestito; sporis globosis, 1-nucleatis, 5-6 μ . diam., roseis.

Hab. inter folia dejecta pr. St. Louis Mo. Amer. bor. (N. M. GLATFELTER). — Pileus 1-2,5 cm. lat.; stipes 2-4 cm. long. 2-4 mm. cr.

LEPTONIA Fr. — Syll. V p. 706, IX p. 87, XI p. 46, XIV p. 128, XVI p. 78.

1. *Leptonia bicolor* Masee Kew Bull. 1901, p. 154. — Pileo sub- 231
membranaceo, conico, umbilicato, levi, glaberrimo, pallide roseo, 3-5 cm. alto; lamellis confertis adnexis, angustis, albidis dein incarnatis; stipite fistuloso, sursum attenuato, glabro, nitante, pileo concolori, 8-10 cm. longo, 6-8 mm. crasso; sporis oblongis, nodulosis, incarnatis, 10-11 \times 7

Hab. ad terram, Singapore, Malacca (RIDLEY).

2. *Leptonia tricolor* Masee Kew Bull. 1901, pag. 154. — Pileo sub- 232
membranaceo e convexo plano-depresso, virgato, lilacino, 2-3 cm. lato, margine striatulo incurvo; lamellis annexis, angustis, subdistantibus incarnatis, acie serrulatis; stipite farcto, sursum attenuato, albido, glabro, 5-6 cm. longo, 6-7 mm. crasso; sporis subglobosis, apiculatis, 8-9 μ . diam.

Hab. ad terram, Penang, Malacca (RIDLEY).

3. *Leptonia seticeps* Atkinson in Journ. of Mycol. 1902, p. 116 — 233.
Pileo convexo expanso, margine interdum incurvo, brunneo, centro intense concolori, substriatulo, levi vel minute granuloso, nigropunctulato, 1-3 cm. lato; carne albida tenui; lamellis subadnatis, circ. 4 mm. latis, ellipsoideis, acie erosis, pallide carneis; basidiis cylindræis, 4-sporis, 18-25 \times 6-8; cystidiis nullis vel raris in superficie lamellarum, in acie numerosis, clavato-ellipticis, hyalinis, 50-60 \times 10-15; sporis ovoideis v. subglobosis, levibus, carneis, sub lente pallidis; stipite levi, inferne albido, superne griseo pallidiori, fibroso striato, æquali vel basi incrassatulo, erecto vel curvulo, solido, 1-2 cm. alto, 2-3 mm. crasso.

Hab. in ligno putri ad terram in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.

4. *Leptonia hortensis* Peck in Rep. of the State botanist 1902, p. 26. 234
— Pileo tenui, convexo, umbilicato, hygrophano, rufo-brunneo, striatulo, in sicco pallido, sericeo, 10-20 mm. lato; lamellis tenuibus, stipatis, adnatis, initio albidis dein maturitate roseis; stipite brevi, 16-24 mm. longo, 2 mm. crasso, tenui, glabro, carne pileo concolori; sporis angulosis, 1-nucleatis, $7.5-10 \approx 7.5$.

Hab. ad terram, Menands, Albany co., Amer. bor.

5. *Leptonia Kummeriana* P. Henn. Fungi Afr. orient. II, in Bd. 235
Jahrb. XXVII, p. 36. — Pileo membranaceo, carnosulo, campanulato-umbonato, subobtusulo, squamis granulosis atrocyaneis, verruculoso, violaceo, 12-15 mm. diam.; stipite cartilagineo, fistuloso, gracili, granuloso-verrucoso, atrocyaneo, 3-4 cm. longo, 1 mm. cr.; lamellis adnexis, subdistantibus, inæquilongis, ventricosis, utrinque attenuatis, ca. 1.5 mm. latis, pallidis, dein subcarnescens, acie integris; basidiis clavatis, intus flavo-guttulatis, 16-24 $\approx 6-8$; sporis 4-5 angulatis, basi apiculatis, flavo-carneis, grosse 1-guttulatis, 8-10 $\approx 6-8$.

Hab. ad terram, Usambra Afr. orient. (KUMMER).

NOLANEA Fr. — Syll. V p. 716, IX p. 88, XI p. 47, XIV p. 129, XVI p. 80.

1. *Nolanea nodospora* Atkinson in Journ. of Mycol. 1902, p. 114. -- 236
Totus fungus intense brunneus, 6-7 cm. altus; pileo campanulato squamuloso, floccis squarrosis; carne brunnea, externe compacta, intus floccosa; lamellis ascendentibus, ventricosis, postremo adnatis; basidiis 4-sporis, 30-35 $\approx 8-10$; sporis oblongis, noduloso-oblongis, 12-18 $\approx 6-9$ roseolis, in charta carneis; cystidiis in acie lamellarum, ventricosulo-lanceolatis; stipite superne pallido, fistuloso 1.5-2.5 mm. crasso, basi subincrassato.

Hab. ad terram, in silvis, Six Mile Creek, Ithaca, Amer. bor. 237

2. *Nolanea fibrillosa* Peck Rep. of the State bot. 1900, p. 147, t. I, fig. 12-19. — Pileo tenui, fragili, campanulato vel convexo, hygrophano, brunneo et striatulo, in sicco pallido, lucenti, fibrilloso 12-20 mm. lato; lamellis adscendentibus, stipatis, acie constrictis, adnatis, interdum ventricosis, albidis vel pallidis dein roseis; stipite filiformi, glabro, cavo, pallido, 5-7.5 cm. longo, 1-2 mm. crasso; sporis angulosis, 12.5-15 $\approx 7.5-10$, uninucleatis.

Hab. ad terram in silvis, Floodwood, Amer. bor.

3. *Nolanea rhodospora* (Broome et W. G. Sm.) Sacc. et D. Sacc., 238
Agaricus rhodosporus Broome et Sm. Journ. of Bot. 1903, p. 385.
 — Pileo convexo, fusco-fibrilloso v. rufescenti-piloso; stipite subbulboso, albo; lamellis sinuatis v. liberis, salmonicoloribus v. roseis, 25-31 \approx 1,5 mm.; sporis.... (non descriptis).

Hab. ad terram et fragmenta lignea in calidariis in Britannia.

— *Affinis* dicitur *Nol. rubidæ*.

ECCILIA Fr. — Syll. V p. 729, IX p. 88, XIV p. 129, XVI p. 80.

1. *Eccilia mordax* Atkinson in Journ. of Mycol. 1902, pag. 113. — 239

Sæpe gregaria, 5-7 cm. alta; pileo convexo, umbilicato, margine revoluta, levi, rufo-brunneo vel pallide brunneo, hygrophano, viscido, raro radialiter rimoso, 2-5 cm. lato; carne albido-isabellina; lamellis carne concoloribus, adnatis vel subdecurrentibus, non stipatis; basidiis clavatis, 25-30 \approx 6-8, 4-sporis; cystidiis nullis; sporis ovalibus, 6-7 \approx 4-5, pallide roseis; cellulis lamellarum, 30-60 \approx 6-10; stipite pileo concolori, cartilagineo, fistuloso, levi, sæpe compresso, 3-5 mm. crasso; sapore subnullo, sed gulæ valde acri.

Hab. ad terram in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.

2. *Eccilia rhodocylicioides* Atkinson in Journ. of Mycol. 1902, p. 113. 240

— Sparsa vel 2-3-congesta, 3-5 cm. alta; pileo 5-12 mm. lato, plumbeo-griseo, convexo, umbilicato, centro minute floccoso-squaroso, margine substriatulo; lamellis pallide concoloribus, arcuatis, distantibus, decurrentibus, acie, ob cystidia albis, setulosus; basidiis clavato-cylindræis, 4-sporis, 30 \approx 10-12; sporis subquadrangularibus, 8-10 μ . diam.; stipite cartilagineo, cavo, superne pallido, pileo concolori, 1-2 mm. crasso

Hab. in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.

3. *Eccilia pentagonospora* Atkinson in Journ. of Mycol. 1902, p. 113. 241

— Sparsa, 2-3 cm. alta; pileo plumbeo-griseo, 0,5-1,5 cm. lato, umbilicato vel infundibuliformi, tenui, fibroso-striato, levi vel in superficie minute rugoso; lamellis roseis, 2-4 mm. latis, non stipatis, decurrentibus, ascendentibus; basidiis clavatis, 25-30 \approx 8-10, 4-sporis; sterigmatibus conicis, base incrassatulis; sporis subquadratis, prominenti 4-5-angulosis, 6-10 μ . diam., roseis; cystidiis nullis; stipite cylindrico, solido, æquali, griseo-plumbeo, basi albido tomentoso, carne albida, 1-2 mm. crasso.

Hab. ad terram, Stewart Ave., Ithaca N. Y. Amer. bor.

4. *Eccilia sphagnophila* Peck Rep. of the State bot. 1900, pag. 147, 242

tab. I, fig. 20-23. — Pileo hemisphærico vel umbonato-turbinato, glabro, margine striato, intense brunneo, 8-12 mm. lato; lamellis latis, distantibus, decurrentibus, albidis dein subroseis; stipite filiformi, 3,5-5 cm. longo, 1,5-2 mm. crasso, glabro, pileo concolori; sporis angulosis, 7,5-12,5 \times 6-7,5.

Hab. in paludosis intra Sphagna, Floodwood, Amer. bor.

5. *Eccilia Henningsii* (Star.) Sacc. et D. Sacc., *Agaricus* (*Eccilia*) *Henningsii* Star. Verhandl. Bot. Ver. Prov. Brandenbg. XIV, 1903, p. 90. — Pileo carnosulo, primo umbilicato, usque ad 4 cm. diam., fusco-brunneo cinerescente, margine revoluti; stipite fistuloso, cartilagineo, concolori, basi villosulo, haud punctulato, usque ad 5 cm. longo; lamellis incarnatis, cinereo-maculatis, paullum decurrentibus, acie subdenticulata, haud atra; sporis 8-12 \times 7-10.

Hab. ad terram inter gramina, Grosskühnauer Park Dessau Germaniæ. — *Ecc. atridi* et *E. griseo rubellæ* affinis.

CLAUDOPUS W. Sm. — Syll. V p. 733, IX p. 89, XI p. 48, XIV p. 130, XVI p. 82.

1. *Claudopus argentinensis* Speg. Myc. Arg. ser. I. in Ann. Soc. Cient. Argent. 1899, pag. 264. — Pileo irregulariter orbiculari, 8-9 cm. diam. et leniter inæquilaterali, horizontali convexo, centro late obtuseque umbonato, margine incurvulo, integro vel vix sinuoso-repandulo, cute tenui, sæpius radiatim minute fibrilloso-ri-mosa, sordide argentea v. subcinerea, in vivo subviscosa, in sicco subsericea vestito; carne candida immutabili, in umbone flocculoso-compactiuscula super lamellas tenuissima vix evoluta, cum illa stipitis continua; lamellis segmentiformibus, tenuiusculis, 10-12 mm. lat., membranaceis, confertiusculis, polymacriis, pro ratione latis-simis, antice attenuato-rotundatis, postice abrupte subtruncato-rotundatis, a stipite remotis, primo albis, dein roseis, postremo pallide carneis; stipite laterali adscendenti-incurvo, tereti 7-8 cm. longo, 6-7 mm. cr., intus farcto albo, extus albo v. subpallidente, sæpius plus minusve obsoleteque fibrilloso-reticulato v. fibrilloso-striato; sporis ovatis, inæquilateralibus, 8 \times 4, levibus.

Hab. ad truncos emortuos putrescentes Eucalypti globuli La Plata Argentinæ.

2. *Claudopus byssisedoides* P. Henn. F. Amaz. I in Hedw. 1904, p. 183. — Pileo carnosulo, subresupinato, basi affixo v. substipitato, flabelliformi v. reniformi, superne pallido, pruinoso, levi, 3-7 mm. longo latoque; stipite laterali, brevissimo, curvato, basi ef-

fuso albido-byssino; lamellis decurrentibus, confertis, inæquilongis, ventricosus, 0,5 mm. lat., flavido-incarnescentibus, acie integris; basidiis clavatis; sporis ovoideis v. ellipsoideis, 1-guttulatis, pallide incarnatis, 4-6 × 4-5.

Hab. in petiolis putrescentibus Palmarum, Rio Jurua, Jurua-Miry, Amazonia (ULE). — Præcipue sporis regularibus ab affinis *Cl. byssisedo* differt.

Sect. 3. Ochrosporæ.

PHOLIOTA Fr. — Syll. V p. 736, IX p. 90, XI p. 48, XIV p. 131, XVI p. 83.

1. **Pholiota grandis** Rea Trans. Brit. Myc. Soc. 1903, pag. 37. — 246

Pileo convexo dein expanso et late gibboso, sicco, 23-30 cm. lato, fulvo, squamulis innatis saturatius fulvis tecto; carne læte flava, centro 5 cm. crassa; stipite 25-30 × 6-7 cm., firmo, fusoides, supra annulum profunde stricto, infra squamuloso, fulvescente; annulo distanti, fugaci; stipitis carne ferruginea, apice flavida, centro scissili; lamellis latissimis, 1,5-2 cm. lat., antice attenuatis, postice sinuato-decurrentibus, pallidis dein fuscis, sat confertis; sporis oblongis, 6 × 3, fuscis.

Hab. caespitosa ad basin Fraxini, Worcester et Exeter Britanniae. — Odor et sapor grati. — Species inter *Ph. squarrosam* et *Ph. spectabilem* media.

2. **Pholiota Gollani** P. Henn. Fungi Indiæ or II, in Hedw. 1901, 247

p. 333. — Magna, carnosa, crassa; pileo convexo explanato, obtuso-rotundato, levi, glabro, brunneo, margine integro, 3-16 cm. diam.; stipite farcto, tereti, æquali, crasso, interdum curvulo, albido subnitenti, sparse brunneolo-furfuraceo, usque ad 16 cm. longo, 3 cm. crasso, annulo membranaceo-floccoso, pallido, fugaci; lamellis sinuoso-adnatis, confertis, lanceolatis, medio usque ad 5 mm. latis, utrinque attenuatis, primo stramineis dein subochraceis, acie integris; sporis ellipsoideis, utrinque rotundatis, 1-2 guttulis, pallide flavis, levibus, 10-13 × 6-8; carne pallida, firma.

Hab. in trunco Tamarindi indici, Saharanpur-Garden Indiæ orient.

3. **Pholiota fulvo-squamosa** Peck, Bull. Torr. Bot. Cl. 1903, p. 95. — 248

Pileo carnoso, sat tenui, convexo, demum subplano, sicco, squamis adpressis copiosis, fulvo-brunneolis consperso, concentrice fatiscen-

tibus; carne alba, cæsa brunneola, sapore et odore raphani; lamellis angustis, confertis, introrsum tenuatis et collario angusto connexis, albidis dein rubido-cinnamomeis; stipite æquali, rigido, farcto v. cavo, deorsum squamis erectis subfloccosis, fulvis squaroso, apice glabro et infra annulum amplum persistentem subglabro; annulo supra albedo, infra fulvo-floccoso-squamuloso; sporis ellipsoideis, $8 \approx 4-5$.

Hab. ad basin Quercuum, Michigan Amer. bor. (B. O. LONGYEAR). — Pileus 6-12 cm. lat.; stipes 5-8 cm. long., 8-10 mm. crass.

4. **Pholiota ventricosa** Earle in New York Bot. Gard. 1902, p. 341. 249

— Gregaria vel cæspitosa; pileo 7-8 cm. diam., convexo, obtuso, rufo-brunneo, disco saepe concavo, minute fibrilloso vel subglabro, luteolo, margine æquali, subappendiculato, floccis incrustato; lamellis subsinuosis, adnatis, latiusculis vel subventricosis, margine integris, initio pallide brunneis dein cinnamomeis; sporis ferrugineis, ovatis vel subellipticis, $8-9 \approx 4-5$. volva luteo-pallida v. pallide brunnea, exili, fibrillosa; annulo persistenti, exili, in summitate stipitis posito; stipite firmo basi tomentoso ventricosoque, 14-18 \approx 2-3 cm., brunneolo, fibrilloso vel subglabro, in proximitate annuli dense albo-tomentoso; carne pallide lutea, immutabili, sapore odoreque nullis.

Hab. in pinetis, Standfort University Californiæ.

5. **Pholiota præcox** — Syll. V, p. 738. — Var. **silvestris** Peck in 250
Harrim. Alaska Exped. Crypt. p. 46. — A typo differt pileo toto, nec tantum centro, rufo-flavido v. rubiginoso.

Hab. ad terram Yakutat Bay Alaska (TRELEASE).

6. **Pholiota indica** Massee in Kew Bull. 1901, p. 151. — Pileo car- 251

nos, e conico-campanulato expanso, sicco, squamis concentricis adnatis ornato, brunneolo, marginem versus albedo, 3-8 cm. lato; lamellis adnexis, latis, subdistantibus, umbrinis; sporis subglobosis, umbrinis, $9-10 \approx 7-8$; stipite farcto, æquali, basi subincrassato, albo, usque ad annulum remotum peronato.

Hab. ad terram, Poona, prov. Bombay, Indiæ britann. (WOODROW). — *Phol. radicosæ* Bull. affinis.

7. **Pholiota Aschersoniana** P. Henn et Ruhl. Verh. Brandbg. 1901, 252
XLIH, p. 119. — Pileo carnos, convexo-plano, centro paullum

umbonato, obtuse rotundato vel plano, 3-6 cm. diam., cupreo-violascente, pilis fasciculato-radiatis, obscurioribus vestito, margine tenui, flavo-brunnescente, ochraceo-tomentoso; stipite fistuloso, sub-

tereti, superne flavido, inferne rufo-brunneolo striatulo, basi subincrassato, curvulo, 2-3,5 cm. longo, 2,5-4 mm. crasso, annulo tenui-membranaceo, fisso, albido secedente; lamellis sinuoso-adnatis dente decurrentibus, inæquilongis, confertis, lanceolatis, flavidis dein ferrugineis; basidiis clavatis, 4-sterigmaticis, 18-21 \approx 6-8; sporis ellipsoideis vel ovoideo-ellipsoideis, basi apiculatis, late brunneis, in massa ferrugineis, 6-7,5 \times 4-5; carne flavida; odore ingrato.

Hab. in calidariis in horto botanico Berolinensi Germaniæ.

8. **Pholiota aggericola** Peck — Syll. V, pag. 740. — Var. **retirugis** ²³³
Peck in Rep. of the State bot. 1900, p. 167. — Pileo rugoso-reticulato, cetera ut in typo.

Hab. in silvis, Westport, Amer. bor.

9. **Pholiota Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, pag. 53, ²⁵¹
Syll. XVI, pag. 1113 (nomen). — Pileo carnosio, convexo plano, squamoso, aurantiaco, squamis adpressis, vertice obtuso rotundato, pallide ochraceo, 2,5-4 cm. diam.; stipite farcto tereti, curvulo, flavo-rufo, brunneo-striato, 2-3 cm. longo, 2-3,5 mm. crasso, annulo membranaceo, pallido; lamellis sinuoso-adnatis, late ventricosus, confertis, flavo-aurantiis dein ochraceis; sporis ellipsoideis, levibus, 6-8 \times 4-4,5, ochraceis.

Hab. ad caudices emortuos, Kamerun Africae

10. **Pholiota granuloso-verrucosa** P. Henn. F. Indiæ or. II, in Hedw. ²⁵⁵
1901, p. 333. — Pusilla; pileo carnosulo, convexo, obtuso-rotundato ex pallido isabellino, verrucis granulosis obtusioribus vestito, 0,5-1 cm. diam.; stipite fistuloso-floccoso, tereti, brunneolo, sparse verrucoso-granuloso, 1,5-3 cm. longo, 1-1,5 mm. cr., annulo membranaceo secedente; lamellis subliberis v. adnexis, confertis, angustis, cinereo-ferrugineis; sporis ellipsoideis, flavo-brunneis, 3,5-4 \times 3, levibus.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

11. **Pholiota martinicensis** Pat. in Duss Enum. Champ. Guadel. ²⁵⁶
p. 54. — Pileo carnosio, convexo dein expanso, 8-15 mm. diam., brunneo-rufo, centro saturatiore, squamulis erectis, remotis, angustis, rufis consperso; lamellis adnatis, brunneis, inæqualibus; sporis ovoideis, levibus, 6 \times 4, brunneis; stipite centrali, gracili, 2-3 cm. long., sursum levi, basi furfuraceo-squamuloso; annulo medio, membranaceo, erecto, persistenti.

Hab. ad cortices putres *Mangiferae* in silvis inferioribus in Montagne Pelée Martinicæ.

LOCELLINA Gill. — Syll. V p. 761, IX p. 94, XVI p. 87.

1. **Locellina Starnesii** Peck in the Torr. Bot. Club. 1902, p. 72. — 257

Pileo carnosio-tenui, convexo vel subplano, interdum umbonato, centro brunneo, radiatim lineariter brunneo-striato vel punctulato; carne alba; lamellis angustis, adnatis, dein liberis, initio roseo tinctis dein cinereo-brunneis; stipite tenui, sæpe curvulo, interdum erecto submedullato, albo, basi bulboso; annulo superiori; sporis brunneis, ellipticis, 5-6 \times 4.

Hab. in Georgia, Amer. bor. (V. STARNES). — Pileus 2,5-5 cm. latus; stipes 2,5-5 cm. long., 4 mm. crassus.

INOCYBE Fr. — Syll. V p. 762, IX p. 95, XI p. 50, XIV p. 132, XVI p. 87.

1. **Inocybe cortinata** Roll. in Bull. Soc. Myc. de France 1901, p. 117, 258

t. 3, f. 1. — Pileo carnosulo sed crasse umbonato, primum campanulato dein sat expanso, usque ad 4 cm. diam., dilute albido-stramineo, umbone ferruginescente, subtiliter fibrilloso-striato, demum lacerato, magis colorato, velo albo-floccoso; lamellis adnato-decurrentibus ventricosis, acie dilutiori, floccoso-serrulata, primum albidis dein ochraceo-fuscescentibus; sporis ovoideis, ochraceis, 8 \times 4,5; stipite cylindraneo fragili, curvato flexuoso, farcto, albo sursum furfuraceo, 7-8 cm. long., 5 mm. cr., annulo fibrilloso, albo.

Hab. catervatim sub Pinu maritima, La Maure, Golf Juan Gallie. — *In. tomentellæ*, *I. vatricosæ* et *I. sindoniæ* affinis sed habitu et velo differt.

2. **Inocybe (Asterosporina) flavo-fusca** P. Henn. in Engl. Bot. Jahrb. 259

1901, p. 52, Syll. XVI p. 1113 (nomen). — Pileo carnosulo, campanulato-expanso, flavo-cinereo, margine minute striatulo, centro obtuso, fusco-squamuloso, 2-4 cm. diam.; stipite subfarcto, tereti, flavo-brunneo, inferius brunneo-squamuloso, 4-6 cm. longo, 2-3 mm. cr.; lamellis adnatis, subconfertis, angustis, flavidis dein olivaceo-ferrugineis; sporis subglobosis asteroideis, fusco-olivaceis, 5-7 μ . diam.

Hab. ad terram, Kamerun Africae.

3. **Inocybe squamosa** Bres. Myc. Lusitanici novi, in Atti R. Acc. di 260

Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 129.

— Pileo carnosulo, e convexo expanso, sæpe umbonato, ochraceo-fulvo, squamis concoloribus, fibrilloso-hirtis dense obsito, centro sublevi, sæpe areolato, 1-1,5 cm. lato; lamellis subdistantibus, latis postice sinuatis, e cystidiis copiosis villosis, pallide fulvis; stipite

subæquali, fibrilloso-flavidulo e farcto subcavo, 1-3 cm. longo, 2-4 mm. crasso; carne flavida, miti, odore vix ullo; sporis obovatis, $9-11 \approx 6-7$, ochraceis; basidiis clavatis, $25-30 \approx 9-10$; cystidiis subclavatis, apice muricellatis, $70-90 \approx 10-13$.

Hab. ad terram pr. Setubal Lusitaniæ. — *Inocybe dulcamaræ* Alb. et Schw. et *In. cæsariatæ* Fr. proxima, quarum formam et colores quoque habet, sed pileo evidentius squamoso, sporis latioribus et præsentia cystidiorum optime distincta.

4. *Inocybe bipindensis* P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, 261
Syll. XVI, pag. 1113 (nomen). — Pileo carnosulo, campanulato-obtuso, tomentosulo-squamoso, castaneo, 1,5-2 cm. diam.; stipite farcto, tereti, squamuloso, cinereo-brunneo, 3-5 cm. longo, 1,5 mm. cr.; lamellis adnatis, subconfertis, pallidis dein olivaceo-fuscis; sporis ellipsoideis, 1-guttulatis, $5-7 \approx 3,5-4$, episporio flavo-brunneo, levi.

Hab. in ligno putri, Kamerun Africae.

5. *Inocybe subochracea* Peck — Syll. V, p. 796, sub *Hebeloma*. — 262
Var. *Burtii* Peck Rep. of the State Bot. 1900, p. 167. — Cortina conspicua, fibrillosa; margine pilei magis fibrilloso; stipite longiori et etiam magis fibrilloso.

Hab. ad terram paludosam, Gloodwood, Amer. bor. (E. A. Burt).

HEBELOMA Fr. — Syll. V p. 791, IX p. 102, XI pag. 54, XIV p. 134, XVI p. 91.

1. *Hebeloma Bakeri* Earle in New York Bot. Gard. 1902, p. 342. — 263
Solitarium; pileo 5-7 cm., expanso, cremeo, disco intensius concolori, viscido glabro, margine integro; carne albida vel cremea; odore saporque grato; stipite circ. 8 cm. longo, 7 mm. lato, æquali, inferne subglabro, superne pruinoso, solido, pileo concolori, firmo; lamellis profunde sinuosis, heterophyllis, stipatis, subventricosis, pallide ochraceo-brunneis, margine albidis et subcrenulatis; sporis elliptico-ovatis, $10-12 \approx 6-7$, centro vacuolatis.

Hab. sub quercetis, Stanford University Californiæ.

2. *Hebeloma sericipes* Earle in New York Bot. Gard. 1902, p. 342. 264
— Solitarium; pileo 4-6 cm. late convexo-plano vel subdepresso, obtuso, pallide olivaceo-brunneo, sicco, disco glabro, margine sericeo-fibrilloso, integro; carne albida, sapore odoreque grato; stipite 4-6 cm., 7-9 mm., æquali, inferne subglabro, superne sericeo-fibrilloso, albido, firmo, tortuoso; lamellis sinuosis, stipatis, subconstrictis, fere

planis, initio albidis dein ochraceo-brunneis, margine albidis, crenulatis; sporis ellipticis vel subovatis, levibus, late centro vacuolatis, $7-10 \times 5-7$.

Hab. ad terram, in silvis Stanford University Californiæ.

3. *Hebeloma albidulum* Peck Rep. of the State bot. 1900, pag. 148. 265
— Pileo carnoso, firmo, subconvexo vel fere plano, glabro, subviscido dein brunneo albido vel griseo-albo, 2,5-6 cm. lato; carne alba; lamellis stipatis, constrictis, adnatis, minute denticulatis, acie albidis, albis dein brunneo-ferrugineis; stipite æquali, firmo, glabro, superne farinoso-pruinoso, sæpe bulbosulo, cavo, pileo concolori, 3,5-6 cm. longo, 4-6 mm. crasso; sporis subellipsoideis, obtusis, $10-12,5 \times 6-7,5$.

Hab. in silvis, Westport, Amer. bor. — *H. albo* Peck valde affinis species sed pilei colore, sporisque obtusis differt.

4. *Hebeloma pascuense* Peck Rep. of the State Bot. 1899, pag. 844, 266
t. C, fig. 21-27. — Pileo convexo dein subplano, viscido, obscure fibrilloso, brunneo-argillaceo, sæpe centro rufescenti, margine albicanti, 2,5-5 cm. diam.; carne albida, sapore grato, odore subnullo; lamellis stipatis, acie rotundatis, albidis dein pallide ochraceis; stipite firmo, brevi, 2,5-5 cm. alto, 4-6 mm. crasso, æquali, fibrilloso, sursum farinoso, albido vel pallido; sporis pallide ochraceis, subellipticis, 1-nucleatis, 10×6 .

Hab. in herbosis aridis, gregarium vel subcæspitosum, prope Warrensburg, Amer. bor.

5. *Hebeloma album* Peck Rep. of the State Bot. 1900, p. 147, t. G, 267
fig. 1-7. — Pileo carnoso, firmo, convexo dein fere plano v. concavo, margine incurvato, glabro, subviscido, albo vel luteo-albo, 2,5-3,5 cm. diam.; carne alba; lamellis tenuibus, constrictis, stipatis, emarginatis, adnatis, albidis dein brunneo-ferrugineis; stipite æquali, firmo, longiusculo, solido, farcto, superne farinosulo, albo, 3,5-7,5 cm. longo, 4-6 mm. crasso; sporis subellipsoideis, utrinque apiculatis vel 1-apiculatis, $12,5-15 \times 6-7,5$.

Hab. in silvis, Westport, Amer. bor.

6. *Hebeloma bulbosum* Fayod in Ann. R. Acc. d'Agr. Torino 1893, 268
p. 95, *Agaricus fastibilis parvulus* Secret.? — Pileo hemisphærico albo v. lutescente, levi, dein pulvinato, 4-5 cm. lat, umbone obtuso, jove udo subviscoso; carne alba, centro circ. 1 cm. cr.; stipite medullato-farcto, 6-7 cm. longo, 0,5 cm. lato, albo, apice farinoso, basi in bulbillum subsphæricum inflato; lamellis liberis subconfertis, acie crenulatis et albo punctatis, cinnamomeis; cy-

stidiis clavatis; basidiis emergentibus $27 \approx 9$; tetrasterigmaticis; sporis ovoideo-conoideis, $9 \approx 6$, levibus v. subtiliter punctatis, submicroscop. ochraceis.

Hab. catervatim in graminosis, betuletis et alnetis in alpinis Bricherasio Pedemontii.

FLAMMULA Fr. — Syll. V pag. 809, IX pag. 104, XI p. 56, XIV p. 136, XVI p. 94

1. **Flammula californica** Earle in New York Bot. Gard. 1902, p. 342. 269
— Gregaria vel cæspitosa; pileo 4-7 cm. diam., expanso, subumbonato pallide ochraceo-brunneo, umbone sæpe intense concolori, glabro, subhygrophano, margine integro; carne crenea, sapore odoreque subnullo; lamellis subsinuoso-decurrentibus, heterophyllis, stipatis, subventricosis, pallide ochraceis vel fusco-ferrugineis; stipite 5-6 cm., 3-4 mm., subæquali, apice et basi fere incrassatulo, superne glabro, albo-luteo, inferne fibrilloso, brunneo, firmo; sporis ferrugineis, ellipticis, $6-7 \approx 4$.

Hab. in silvosis, Stanford University Californiæ.

2. **Flammula ochraceo-tristis** P. Henn in Engl. Bot. Jahrb. 1901, 270 p. 53, Syll. XVI, p. 1114 (nomen). — Pileo carnosulo, convexo-expanso, centro obtuso fusco-squamuloso, radiato striatulo, ochraceo-brunneo, margine pallidiori, 4-6 cm. diam.; stipite farcto tereti, flexuosulo, striato, subfimbriato, atro-brunneo, 6-8 cm. longo, 4-5 mm. cr.; lamellis sinuoso-adnatis, late ventricosis, subconfertis, pallide flavis fuscescentibus; sporis ellipsoideis vel ovoideis, basi apiculatis, intus granulosi, episporio flavidulo vel brunneolo, levi.

Hab. ad terram, Kamerun Afr. — *Fl. flocciferæ* affinis.

3. **Flammula Braendlei** Peck Bull. Torr. Bot. Cl. 1904, pag. 180. — 271
Pileo convexo dein subplano, margine incurvo, interdum irregulari, fibrilloso-squamuloso, præsertim ad centrum, leniter viscido, juniore purpureo, dein flavido v. flavido-albo, interdum virescenti-tincto; carne albida; lamellis tenuibus, confertis, adnatis v. breve decurrentibus, maturis ferrugineis: stipite æquali v. sursum leviter tenuato, fibrilloso, cavo, albido brunneo-variegato; velo arachnoideo, interdum zonam sericeam circa stipitem formante; sporis ellipsoideis $6-8 \approx 4-5$, ferrugineis.

Hab. solitaria v. cæspitosa ad truncos dejectos, pr. Washington et St. Louis Amer. bor. (BRAENDLE et GLATFELTER). — Pileus 2, 5-5 cm. lat.; stipes 2,5-5 cm. long., 4-8 mm. cr.

4. *Flammula excentrica* Peck Bull. Torr. Bot. Cl. 1904, p. 179. — 272

Pileo tenui, late convexo, obtuso v. leviter umbonato, sicco, minute squamuloso, fulvo, flavido v. rubido-ferrugineo; carne albidâ; lamellis latiusculis, confertis, subsinuato-adnatis, fumose ochraceis, demum ferrugineis; stipite æquali v. sursum leviter tenuato, vulgo excentrico, solido, fibrilloso, flavido v. subochraceo, demum intus extusque brunneo; sporis late ferrugineis, ellipsoideis, 15-16 \times 8.

Hab. ad ligna putrida pr. St. Louis Mo. Amer. bor. (GLATFELTER). — Pileus 2,5-3, cm. lat.; stip. 2-3 cm. long., 4-8 mm. cr.

5. *Flammula velata* Peck Bull. Torr. Bot. Cl. 1903, p. 96. — Pileo 273

carnoso, ad marginem attenuato, convexo, udo, sulphureo-flavo, centro rubescente vel aurantio, margine persistenter incurvato; carne flavida v. viridi-flavida, sapore dulci; lamellis arcuatis, adnatis vel leviter decurrentibus, 5 mm. lat., pallide flavis, denique subrubiginosis, primitus velo distincto, tenuiter arachnoideo, flavido-albo obductis; stipite brevi, tenui, flexuoso, farcto, apice sulphurello, deorsum brunneo, basi tomentello; sporis ellipsoideis, 5-8 μ . longis.

Hab. ad terram silvaticam ad pedem M.r Moscow Idaho Amer. bor. — Pileus 2-4 cm. lat., stipes 2,5-4,5 cm. long., 2-4 mm. cr.

6. *Flammula alnicola* Fr. — Syll. V, p. 820. — Var. *marginalis* Peck 274

Rep. of the State Bot. 1900, p. 167. — Pileo carnoso, firmo, conico v. subcampanulato, viscido, glabro, margine fibrilloso-tomentoso, luteo, 16-32 mm. diam.; carne alba, sapore grato; lamellis tenuibus, stipatis, rotundatis, pallide luteis dein ferrugineis; stipite firmo, subæquali, farcto vel cavo, fibrilloso, subannulato, superne luteo, inferne ferrugineo, 6-8,5 cm. longo, 4-8 mm. crasso; sporis ellipsoideis, 7,5-10 \times 5.

Hab. cæspitosa in lignis emortuis *Aceris rubri*, Westport, Amer. bor.

7. *Flammula echinospora* Speg. Myc. argent. ser. II, 1902, p. 51. — 275

Solitaria v. rarius 2-3-cæspitosa, pileo primo convexulo dein concavo, postremo infundibuliformi, 15-25 mm. diam., plus minusve excentrico, lutescenti-ferrugineo, pulverulento-pruinoso; carne pallide lutescente; lamellis non confertis, latiusculis, 1,5-2 mm. lat., fulvis, longe decurrentibus, primo ferrugineis dein fusco-ferrugineis; stipite 10-20 mm. longo, 2-3 mm. crasso, pulverulento, velutino, ferrugineo farcto, basi non dilatato, e tereti compressulo; cystidiis nullis; basidiis clavulatis, 30-35 \times 8-10 hyalinis; sporis

globosis, 7-8 μ . diam. non vel vix rostellatis, tenuiter tunicatis, dense verruculoso-papillosis, ferrugineis.

Hab. ad terram humosam prope Cordoba in Argentina.

8. *Flammula sulphurea* Massee in Bot. Tidsskrift-Copenhagen 1902, 276 vol. 24, pag. 215. — Cæspitosa; pileo convexo expanso, glabro, margine pellucide striato, sicco levi, late sulphureo, 1-2 cm. lato; lamellis distantibus, decurrentibus, concoloribus; sporis fulvidis, 6 \times 4; stipite e farcto cavo, glabro, sursum attenuato, flavido, basi fusciscenti, 4-6 cm. alto.

Hab. ad terram prope Klong Son, Siam Asiæ merid. — *Fl. tilopodæ* Kalchbr. et Mc. Ov. affinis.

9. *Flammula aureo-viridis* Pat. in Duss Enum. Champ. Guad. 1903, 277 p. 55. — Pileo convexo, centro umbilicato, e flavo-aureo viridulo, unicolore, glabro, levi, 15 mm. diam.; lamellis adnatis, confertis, angustis, rufescenti-brunneis; stipite centrali, cylindrico, flexuoso, flavo-virenti, fibrilloso, 4-7 cm. long., 1 mm. cr.; sporis ochraceo-purpureis, 6-8 \times 5.

Hab. catervatim ad ligna putrescentia, Camp Jacob Guadalupa (Duss). — Analoga *Hypholomati fasciculari*.

10. *Flammula olivacea* Pat. in Duss Enum. Champ. Guadel. 1903, 278 p. 55. — Pileo convexo, centro mamillato-obtuso, flavo-olivaceo, unicolori, glabro, levi, 6-12 mm. diam.; lamellis angustis, confertis, adnatis, brunneolis; stipite filiformi, centrali, cylindrico, pileo concolori, 15 mm. long.; sporis flavo-rufescentibus, ovoideis, levibus, 8 \times 5.

Hab. cæspitosa ad ligna putrida, Basse-Terre Guadalupa (Duss).

11. *Flammula pusilla* Peck in Rep. of the State Botan. 1902, p. 26, 279 t. M, fig. 35-41. — Pileo tenui, convexo dein subplano, glabro, viscido, pallide fulvo v. luteo-ferrugineo, 12-24 mm. lato; lamellis constrictis, adnatis, stipatis, albidis dein brunneo-ferrugineis; stipite æquali, solido, farcto, floccoso-fibrilloso, albido dein basi ferrugineo, villosa-strigoso, sursum floccoso-pulverulento, 16-30 mm. longo, 2 mm. crasso; sporis ellipsoideis, 7,5 \times 4.

Hab. in truncis putrescentibus, in silvis Smithtown, Suffolk co., Amer. bor.

12. *Flammula granulosa* Peck in Bull. Torr. Bot. Club 1902, XXIX, pag. 561. — Pileo hemisphærico 1,5-3 cm. d., squamuloso, fulvo; lamellis latis, vix decurrentibus, flavo-ferrugineis; stipite 2,5-3 cm. l., 2 mm. cr., concolore; sporis 7-8 \times 4-5.

Hab. ad ligna emortua M.t Desert Am. bor.

NAUCORIA — Fr. Syll. V p. 828, IX p. 109, XI p. 57, XIV p. 139, XVI, p. 97.

1. **Naucoria striata** Clem. et Shear in Bot. Surv. Nebr. 1901, p. 10. 280
— Gregaria; pileo carnosio, convexo, dein explanato repandoque, glabro, glutinoso, ochroleuco, pallide marginato, 3-6 cm. diam.; stipite æquali vel basi subincrassato, interdum compresso solido vel ætate medullato, fibroso, in parte superiore lineato, lucenti, pallide cremeo, inferne fusciscenti 4-7 cm. longo, 13-15 mm. cr.; lamellis liberis, interdum stipatis, ventricosis, initio pallide umbrinis, dein ferrugineis; sporis ovoideis, levibus, ferrugineis, 7-8 \approx 5.

Hab. in terra humosa, Lincoln, Nebraska, Amer. bor.

2. **Naucoria firma** Peck Rep. of the State Bot. 1900, p. 148, t. *H*, 281
fig. 10-16. — Pileo carnosio, firmo, subconvexo, cito fere plano, hygrophano, nigro-brunneo, in sicco ochraceo-brunneo, sæpe ruguloso, 16-24 mm. diam.; carne alba, sapore farinaceo, dein aquoso; lamellis tenuibus, constrictis, stipatis, acie rotundatis, adnatis, minute flocculosis, pallidis; stipite firmo, æquali, sæpe curvulo, faretto vel cavo, fibrilloso-striato minuteque flocculoso, pileo concolori v. pallidiori, 2,5-5 cm. longo, 2-4 mm. crasso; sporis ellipticis, brunneo-ferrugineis, 7,5 \approx 5.

Hab. in truncis emortuis, Floodwood, Amer. bor.

3. **Naucoria tuberosa** P. Henn. Hedw. p. (310) c. ic. — Pileo hemi- 282
sphaerico, convexo, subcarnoso, levi, glabro, flavo-brunneo, 2,5-2 cm. diam., stipite cylindrico gracili, albo-medullato, dein subcavo, flavo-brunneo; striatulo glabro, 4-8 cm. long., 2-3 mm. cr., basi conspicue bulboso-incrassato, mycelio albido, filamentoso vel submembranaceo infra munito; lamellis sinuoso-adnatis, medio subventricosis, 3 mm. lat., remotiusculis, umbrinis, acie pallidioribus; cystidiis ampulliformibus, 30-40 \approx 10; basidiis clavatis, 20-25 μ . long.; sporis ellipsoideis, raro ovoideis, sordide flavo-brunneolis, levibus, 7-9 \approx 4-5.

Hab. in hortis Michailowskoje gub. Mosquensis Rossis. — (Comitissa K. SCHERREMETJEFF.).

4. **Naucoria uliginosa** Peck Rep. of the State Bot. 1900, pag. 149, 283
tab. *H*, fig. 1-9. — Pileo tenui, convexo, dein fere plano, glabro, hygrophano, intense brunneo, margine striatulo, dein in sicco pallidiori, 12-20 mm. lato; carne brunnea; lamellis latis, modice stipatis, acie rotundatis, adnatis, crenulatis, subventricosis, fractis ochraceis; stipite filiformi, firmo, subfibrilloso, cavo, rubro-brunneo

dein in sicco pallido, 2,5-5 cm. longo, 2 mm. crasso; sporis brunneo-ferrugineis, subellipticis, sæpe 1-nucleatis, 10-12,5 \times 5-6.

Hab. in paludosis, Sandlake, Rensselaer Co., Amer. bor.

5. *Naucoria fusispora* P. Henn. Fungi Indiæ or. II in Hedw. 1901, 284 p. 332. — Purpurea; pileo submembranaceo-carnosulo, campanulato, vertice subumbilicato depresso, conico v. obtuso-papillato, radiato-striato, 1-2 cm. diam.; stipite fistuloso, tenaci corticato, æquali, gracili, levi, glabro, basi radicato, castaneo vel purpureo, 5-11 cm. longo, 1-2 mm. crasso; lamellis adnatis, subconfertis, lanceolatis, 1,5-2 mm. latis, purpureis; sporis oblongo-fusoideis, utrinque apiculatis, 1-guttulatis, 6-8 \times 4, flavo-ochraceis.

Hab. ad terram, Mussoorie, Arnigadh Indiæ orient.

6. *Naucoria coloradensis* Tracy et Earle in Plantæ Bakerianæ fasc. I, 285 fungi pag. 25. — Pileo convexo, expanso, subumbonato, luteo-brunneo, sæpe in umbone intensius concolori, sericeo, setulis luteolis, margine non striato, in ætate juvenili fortiter incurvato; lamellis adnatis, brunneo-albidis dein intense brunneis, cortina arachnoidea mox evanida; stipite 4-6 cm. alt., 4-8 mm. crass., subbulboso, pileo concolori, pruinoso; sporis ovoideis, ferrugineo-brunneis, 1-vacuolatis, 10 \times 6.

Hab. ad terram udam, in umbrosis, Mancos, South Colorado, Amer. bor.

7. *Naucoria Cucumis* Pers. Syn. p. 316. — Syll. V, p. 831. — *Nolanea pisciodora* Ces. Comm. critt. ital. p. 61, t. 3, f. 2! *Nolanea picea* Kalchbr. Ic. Hung. t. 11, f. 2!

Hab. quoque ad terram in Polonia. — Species hæc prorsus singularis et vix recte ad genera hucusque admissa trahenda. Forma sporarum straminearum oblonga, 8-10 \times 3 $\frac{1}{2}$ -4, magis cum *Naucoriis* conjungit: consistentia pilei et stipitis ad *Collybias* accedit (Bres. Fungi Polon. in Ann. Mycol. 1903, p. 71).

8. *Naucoria Zenkeriana* P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, 236 Syll. XVI, p. 1114 (nomen). — Cæspitosa; pileo submembranaceo, convexo-campanulato, vertice subconico-papillato, radiatim substriato, flavo-olivascens, 6-10 mm. diam.; stipite tenaci, fistuloso, gracili, levi, glabro, 2-5 cm. longo, 1-1,5 mm. crasso, luteo; lamellis adnatis, subconfertis, cinereo-flavidis dein fuscidulis; sporis ellipsoideis, levibus, flavo-brunneolis, 5,5-7 \times 3,5-4.

Hab. in udis silvaticis, Kamerun Africæ.

9. *Naucoria jaundensis* P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, 287 Syll. XVI, p. 1114 (nomen). — Cæspitosa; pileo submembranaceo,

campanulato-expanso, levi, glabro, ferrugineo-brunneo, centro obscuriori, ad marginem minute striatulo, 3-7 mm. diam.; stipite subfistuloso, tenaci, tereti, flexuoso, levi, glabro, rufo-brunneo. 1,5-2 cm. long., 0,7-1 mm. cr.; lamellis adnatis, inæquilongis, vix confertis, angustis, ferrugineis; sporis ellipsoideis, 1-guttulatis, flavo-brunneolis, 5-6 \approx 3,5-4,5.

Hab. in silvis Jaunde, Kamerun Africae.

10. *Naucoria nana* L. Petri, in Ann. Mycol. 1904, p. 9, fig. 1-2. — 283

Pileo carnosulo, primo e conico campanulato dein convexo-plano, umbonato, 4-6 mm. lato, viscido, nigricante, ad ambitum ferrugineo, striatulo; velo arachnoideo-fugaci; stipite fistuloso, tenui, 9-12 mm. longo, deorsum incrassato, sericello, albo-fibrilloso; lamellis ventricosis, distantibus, latis, flavo-ferrugineis, denticulo decurrentibus; basidiis clavulatis, 19-21 μ . longis bisporis; cystidiis elongatis, basi inflatis, 40-45 μ . longis, apice incrustato-capitatis; sporis ovato-lanceolatis, levibus, subferrugineis, sterigmate brevi suffultis, apice minute papillatis, 10-12 \approx 4,5-6.

Hab. ad terram e detritis Castaneæ in calidariis Horti bot. florentini. — An species exotica cum plantis cultis allata? *N. triscopodæ* et *N. sideroidi* subaffinis.

11. *Naucoria juruensis* P. Henn. F. Amaz. I, p. 183 (Hedw. 1904). 289

— Pileo membranaceo, convexo applanato, medio interdum papillato, margine radiatim subsulcato, ochraceo, ca. 1-2 mm. diam.; stipite filiformi vel setiformi, brunneo vel atro-ferrugineo pruinoso, 1 1/2-2 cm. longo, 120-140 μ . crasso; lamellis adnatis, confertis, ventricosis, crispulis, ochraceis; sporis ovoideis vel subellipsoideis, intus granulatis, ochraceis, 3-4 1/2 \approx 2 1/2-3.

Hab. ad truncos putres inter muscos, Rio Juruá, Juruá-Miry Amazoniæ (ULE). — Videtur affinis *N. rimulincolæ*, tamen bene distincta.

12. *Naucoria myriensis* P. Henn. F. Amaz. I, p. 183 (Hedw. 1904). 290

— Pileo carnosulo, convexo-campanulato, obtuso vel subpapillato, radiatim sulcatulo, castaneo, ca. 1 1/2 mm. diam.; stipite filiformi, atro-castaneo, pruinoso 3-5 cm. longo, 0,3 mm. crasso, basi incrassato; lamellis adnatis, subdistantibus, acie obtusis, castaneis; sporis ellipsoideis vel ovoideis, brunneolis, 1-guttulatis, levibus, 4-5 μ .

Hab. ad ramos putres Rio Juruá, Juruá-Miry Amazoniæ (ULE). — *N. rimulincolæ* quoque affinis.

PLUTEOLUS Fr. — Syll. V p. 859, XI p. 60, XIV p. 141, XVI pag. 102.

1. **Pluteolus aleuriatus** Fr. — Syll. V p. 859. — Var. **gracilis** Peck 291
Rep of the State bot. 1900, pag. 149. — Pileo submembranaceo, fragili, subplano, viscido, margine profunde striato, hygrophano, intense griseo-brunneo, in sicco pallido, 16-24 mm. lato; lamellis tenuibus, stipatis, constrictis, subventricosis, liberis, albidis dein ferrugineis; stipite filiformi, æquali, cavo, minute pulverulento, superne substriato, niveo albo, 2,5-3,5 cm. longo, 1-2 mm. crasso; sporis ferrugineis, ellipsoideis, 1-nucleatis, 10-12,5 × 5-6.

Hab. in silvis, Westport, Amer. bor.

2. **Pluteolus glutinosus** Clem. Bot. Surv. Nebraska 1901, p. 10. — 292
Pileo membranaceo, conico-campanulato dein explanato v. repando, glabro, umbonato, dense mucilaginoso, margine striato, griseo-stramineo, marginem versus fuscescenti, 1,5-2 cm. lato; stipite gracili, cavo, lucenti, æquali, dense fibrilloso-pulverulento, pallide ochroleuco, apicem versus albo-striato, 3 mm. crasso, 5-10 cm. alto; lamellis liberis, distantibus, ventricosis, brunneis; sporis ovatis vel ovato-ellipsoideis, levibus, succineis, 13-16 × 10-12.

Hab. in foliis stercoratis, in silva Octowanie, Nebraska Americæ borealis.

BOLBITIUS Fr. — Syll. V pag. 1073, IX p. 143, XI p. 74, XIV p. 156, XVI p. 127.

1. **Bolbitius Glatfelteri** Peck Bull. Torr. Bot. Cl. 1903, pag. 97. — 293
Pileo tenui, conico v. subcampanulato, mox expanso, margine incurvo, subinde umbonato, glabro, admodum viscido, margine lato striato, albo, centro flavido v. subfulvo; lamellis confertis, sat angustis, subventricosis, liberis, pallidis, demum ferrugineis et pulverulentis; stipite æquali v. sursum leviter tenuato, cavo, supra striatulo, juniore squamuloso v. furfuraceo, demum glabro, nitido et pure albo; sporis 12-16 × 8-10.

Hab. gregatim vel cæspitosus in fimetis, Missouri et Illinois Amer. bor. (N. M. GLATFELTER). — Subaffinis *B. sordido* Lloyd.

2. **Bolbitius Demangei** (Quél.) Sacc. et D. Sacc., *Pluteolus Demangei* 294
Quél. Assoc. franç. l'Avanc. Sc., 1901, II partie, p. 495, pl. III, f. 5. — Pileo convexo-plano, 3-4 cm. lato, membranaceo, striato, viscoso, fusco-lilacino, margine pallidiore; carne alba, stipitis rosea; lamellis liberis vel subdistantibus, sinuatis, confertis, ochraceo-pal-

lidis dein fuscellis; stipite fistuloso, recto, pruinoso, albo dein deorsum roseo; sporis pruniformibus, ochraceis, 12-14 μ . longis.

Hab. in fimetosis ad margines viarum, catervatim, in Vogesis, autumno (VICT. DEMANGE). — Forte var. *P. titubantis*.

GALERA Fr. — Syll. V p. 860, IX p. 113, XI p. 60, XIV p. 141, XVI pag. 103.

1. *Galera bryophila* Peck Rep. of the State bot. 1900, pag. 149, 295 t. G, fig. 15-21. — Pileo tenui, ovato vel subconico, obtuso, hygrophano, luteolo dein in sicco albo, æquali v. margine striatulo, 6-10 mm. lato; lamellis tenuibus, constrictis, subdistantibus, albis vel albidis dein ochraceo-luteis; stipite filiformi, flexuoso, cavo, subsericeo-fibrilloso, superne lanuginoso-pruinoso, basi mycelio albedo obvoluto, 3,5-5 cm. longo, 1 mm. crasso, albedo vel pallido; sporis pallide brunneis, ochraceis, ellipsoideis, 10-12,5 \approx 6-7,5.

Hab. in muscosis, Westport, Amer. bor.

2. *Galera reticulata* Peck Rep. of the State bot. 1900, pag. 150. — 296 Pileo tenui, fragili, hemisphærico v. campanulato, obtuso, glabro, hygrophano, cinnamomeo, dein cremeo-luteo, ruguloso-reticulato, 10-24 mm. lato; carne alba vel albida; lamellis angustis, stipatis, ascendentibus, luteolis dein subferrugineis; stipite filiformi, æquali, cavo, subpruinoso, superne striato, albo, 2,5-6 cm. longo, 2-4 mm. crasso; sporis ferrugineis, ellipsoideis, 7,5 \approx 4-5.

Hab. in muscosis, Ithaca, Amer. bor. (G. F. ATKINSON).

3. *Galera paradoxa* Speg. in Ann. Soc. Cient. Arg. 1899, p. 274. — 297 Solitaria vel laxe gregaria; pileo cylindræco, 20-40 mm. long., 5-7 mm. diam., superne breviter sensimque attenuato ac in umbone rostriformi, 4-6 mm. long., 1-1,5 mm. diam., cylindræco-conoideo producto, deorsum subcoarctato repandulo subplicato; stipite adpresso, margine recto e castaneo-ferrugineo, tenuiter minuteque fibrilloso-sericeo, nitentiusculo, fibris spiraliter longitrorsum dispositis (et pileo torto viso); carne vix evoluta sordide rufescente; lamellis confertis, angustis, 1 mm. lat., tenuiter membranaceis, acie integris, utrinque acutissime attenuatis, a stipite liberis, ferrugineis; stipite pileo duplo vel quintuplo longiore, gracili, 60-100 mm. longo et 1,3-5 mm. crasso, tereti, rigidulo, fistuloso, pileo concolori, levi v. vix fibrilloso, sericeo-nitentiusculo, basi non vel vix incrassato, intus late fistuloso; sporis ellipticis vel ovatis, 16-20 \approx 10-12 levibus, ferrugineis.

Hab. in pratis arenosis secus Rio Chubut, Patagoniæ. — Spe-

cies habitu *Orthotricha* v. *Phasca* nonnulla calyptra adhuc vestita in mentem revocat.

TUBARIA W. Ser. — Syll. V p. 872, IX p. 114, XI p. 61, XIV p. 143, XVI p. 105.

1. **Tubaria asperata** P. Henn. Fungi Indiæ or. II. in Hedw. 1901, 298 p. 331. — Carnosula; pileo convexo-expanso, medio depresso, subochraceo, squamis aculeatis, rigidis obscurioribus, sparse asperato, margine obsolete striato, 8-18 mm. diam.; stipite subfistuloso, postice incrassato, tereti, striato, levi, curvulo, basi discoideo, flavo-brunneo, 1,5-2 cm. longo, 1-1,5 cm. cr.; lamellis longe decurrentibus subtriquetris, subconfertis, ventricosis, 1,5-2 mm. latis, flavo-ochraceis; sporis ellipsoideis vel subovoideis, levibus, flavo-ochraceis, 6-7 \times 4.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

2. **Tubaria saharanpurensis** P. Henn. Fungi Indiæ or. II, in Hedw. 299 1901, pag. 332. — Pileo submembranaceo, convexo campanulato, medio depresso subumbilicato, albido, sicco flavescente, levi glabroque, 5-12 mm. diam.; stipite fistuloso, subcompresso, levi, glabro, subpruinoso, 1,5-2,5 cm. longo, 1 mm. cr., pallido, sicco brunneo; lamellis flavidis, adnatis, paullo decurrentibus subconfertis, angustis; sporis subgloboso-ellipsoideis, 5-6 \times 4, flavidis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

3. **Tubaria brevipes** P. Harrim. Alaska Exped. Crypt. p. 45. — Pileo 300 tenui convexo, glabro, ferrugineo; lamellis latis arcuatis, distantibus, adnatis vel leviter decurrentibus, ferrugineis; stipite brevi, gracili, glabro, cavo, brunneo; sporis ellipsoideis, 1-nucleatis, 10-12 \times 7-8.

Hab. ad terram Port Clarence Alaska (TRELEASE). — Pileus 6-10 mm. lat.; stipes 6-14 mm. long., vix 1 mm. cr. Habitus *Omphaliæ campanellæ* sed sporæ ferrugineæ.

CREPIDOTUS Fr. — Syll. V pag. 876, IX p. 155, XI p. 62, XIV p. 144, XVI p. 108.

1. **Crepidotus laceratus** Pat. Champ. de la Guadeloupe, ser. III, in 301 Bull. Soc. Myc. de France, tab. XVIII, fasc. II, 1902. — Pileo carnosio, ochraceo rufo, pulverulento, ruguloso, flabellato, profunde lacero, postice attenuato, 10-15 mm. long., 8-10 mm. lat.; lamellis numerosis, inæqualibus, integris concoloribus; sporis ovoideis, verrucosis, ochraceis, 5-6 \times 4-5.

Hab. ad ligna putrescentia in Guadalupa (Duss). — *C. pyrrho* affinis sed minutie pilei pulverulenti etc. diversus.

2. **Crepidotus cuneiformis** Pat. Champ. de la Guadeloupe, ser. III, 302 in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Pileo convexo-plano, antice incurvo, margine striolato, postice cuneato, carnoso, molli, glabro, pallide-brunneo, 8-12 mm. lat.; lamellis latis, inæqualibus, brunneolis, subremotis, mollibus, ad punctum insertionis productis; sporis levibus globulosis, brunneis, 6 μ . diam.

Hab. in fragmentis ligneis, putridis, in Guadalupa (Duss).

3. **Crepidotus Psychotriæ** Pat. Champ. de la Guadeloupe, ser. III, 303 in Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Sparsus vel cæspitosus; pileo carnoso, firmo, convexo, glabro, nec sulcato, nec inciso, orbiculari, postice emarginato, ochraceo-pallido, 5-10 mm. lato; stipite nullo; lamellis inæqualibus, latis, confertis, brunneolis; sporis pallide brunneis, 8 \times 5, ovoideis, levibus.

Hab. in ramis putridis Psychotriæ glabratae in Guadalupa (Duss). — Affinis *Crep. molli*.

4. **Crepidotus Citri** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 304 Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Sparsus, resupinatus dein dimidiatus; pileo orbiculari, convexo, tenui, molli, albo-rufescente, glabro, nec striato, nec inciso, minuto, 3-6 mm. diam., postice reniformi; stipite excentrico obsoleto, fugaci, albo, in centro maculæ mycelicæ albæ et tenuissimæ inserto; lamellis tenuibus excentricis, ochraceis; sporis ovoideis, levibus, 7 \times 4 flavido-pallidis.

Hab. in cortice putri Citri in Guadalupa (Duss).

5. **Crepidotus Dussii** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 305 Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Pileo convexo, orbiculari, postice emarginato, glabro, subviscoso non striato, flavo, margine incurvo integro, 3-5 mm. diam.; stipite nullo; lamellis distantibus, latis, flavo-brunneis, inæqualibus; sporis ovoideis, levibus, ochraceis, 8-9 \times 6.

Hab. in fragmentis putridis, ligneis in Guadalupa (Duss).

CORTINARIUS Fr. — Syll. V p. 889, IX p. 117, XI p. 64, XIV p. 845, XVI p. 110.

1. **Cortinarius aurasiacus** Pat. Champ. Algero-Tunis. in Bull. Soc. 306 Myc. de France t. XVIII, 1902, fasc. I, p. 49. — Pileo carnoso, firmo, convexo, dein plano, 10-12 cm. diam., levi, luteo ochraceo pallido, centro albido-lucenti; margine acuto, reflexo, lilacino-mar-

ginato; cortina filamentosa, fulva, infera; lamellis adnatis stipatis, fulvis, margine sublilacinis; sporis verrucosis, 10-12 \times 6, ochraceis.

Hab. ad ligna Quercus Ilicis, Sgag Algeriæ. — Initio hypogæus, dein erumpens, more *Terfeziæ*. Sapor dulcis. *C. multiformi*, *C. largo* et *C. dibapho* affinis.

2. **Cortinarius Whiteæ** Peck in Bull. Torr. Bot. Club 1902, XXIX, 307 p. 560. — Pileo carnosio, hemisphærico, demum subplano, margine undulato-lobato, sicco, glabro, subpruinoso, rubescenti v. e brunneolo-aurantio fulvescenti; lamellis subdistantibus, profunde et late emarginatis rubido-brunneis, dein subcinnamomeis; stipite longo, æquali, solido, fibroso, pileo concolori, lineis fibrosis saturatoribus ornato; sporis subglobosis, 7-8 \times 7.

Hab. in silvis Mont Desert Amer. bor. (Miss. V. WHITE). — Pileus 6-12 cm. lat.; stipes 7-12 cm. long, 1,5-2 cm. cr. Magna species, inter subgen. *Dermocyben* et *Telamoniam* nutans.

3. **Cortinarius radians** Earle in New York Bot. Gard. 1902, p. 343. 308 — Pileo 7,5-11 cm. diam., expanso, obtuso, pallide brunneo, disco griseo, venulis radiantibus, griseis striato, fere levi, sed minute radiato-fibrilloso, viscidulo, margine constricto, reflexo vel subrevoluto; stipite 6,5-8,5 \times 1,5-3 cm., subæquali, inferne subincrassatulo, fere levi vel parce fibrilloso, brunneo, firmo, sed intus molli; carne pallide brunnea, odore saporeque grato; lamellis heterophyllis, constrictis sinuatis, stipatis, subventricosis, initio pallidis? dein intense cinnamomeis; sporis ferrugineo-cinnamomeis, anguste ovatis, granulosis, 9-11 \times 5-6.

Hab. in quercetis, Stanford University Californiæ.

4. **Cortinarius submarginalis** Peck in Rep. of the State bot. 1901, 309 p. 950, tab. L, fig. 6-10. — Pileo carnosio, 5-10 cm. lato, firmo, convexo dein subplano v. margine elevato concavo, viscido, luteo-brunneo, margine fibrilloso; carne albida; lamellis constrictis, stipatis, adnatis, cremeo-luteis dein cinnamomeis; stipite 7,5-15 cm. longo, 8-12 mm. crasso, æquali v. basi incrassatulo, solido, sericeo-fibrilloso, subviscido, albido vel pallido; sporis subellipsoideis, 10-12,5 \times 5-6.

Hab. in silvis, Bolton, Amer. bor.

5. **Cortinarius subvolvatus** (Fayod) Sacc. et D. Sacc., *Telamoniam sub-* 310 *volvata* Fayod in Ann. R. Acc. d'Agric. di Torino 1893, p. 97. — Pileo firmo subelastico, 4-8 cm. lato, centro carnosio, marginibus tenuibus, primo campanulato convexo badio helvolo, margine infracto e velo sericeo candido, mox pulvinato nitente, circa margi-

nem squamis albis secedentibus eleganter ornato; lamellis fulvo-cinnamomeis, rotundato-adnexis, apice angustatis subdistantibus, demum ferrugineis; stipite æquali, 5-8 cm. longo, 6-8 mm. lat., farcto, pallido, apice cortina (e sporis) ferruginea ornato, basi (ex velo generali) albo peronato-subvolvato; carne stipitis pileique alba; basidiis parum emergentibus, 4-sterigmaticis; sporis ferrugineis obovoideis, granulatis, $6 \approx 4$.

Hab. catervatim in pratis salicetisque arenosis et humidis, Pinerolo Pedemontii.

6. **Cortinarius sublateralis** Peck Rep. of the State bot. 1900, p. 151. 311
— Pileo carnoso, 5-7,5 cm. lato, subconvexo v. fere plano, glabro, viscido, rubro; carne alba; lamellis planis, constrictis, stipatis, emarginatis, adnatis, pallidis dein cinnamomeis; stipite brevi, 3,5-6 cm. longo, 6-10 mm. crasso, æquali v. superne subconico, abrupte bulboso, farcto, sericeo, albido; sporis subellipsoideis, utrinque acutis, $10-12,5 \approx 5-6,5$.

Hab. in silvis, Westport, Amer. bor. — *Cort. testaceo* Cooke affinis.

7. **Cortinarius obliquus** Peck in Rep. of the State Bot. 1901, p. 951, 312
tab. L, fig. 1-5. — Pileo carnosulo, 5-7,5 cm. lato, subconvexo v. fere plano, sicco, sericeo-fibrilloso, albido v. griseo, sæpe violaceo; carne albida; lamellis constrictis, stipatis, adnatis v. subrotundatis, acie minute crenulatis, obscure transverse striatis, violaceis dein cinnamomeo-brunneis; stipite æquali, solido, lucenti, sericeo-fibrilloso, albido et violaceo tincto dein violaceo, abrupte oblique bulboso, 5-7,5 cm. longo, 6-10 mm. crasso; sporis ellipsoideis, 1-nucleatis, $7,5 \approx 5$.

Hab. inter folia, in silvis, Bolton, Amer. bor.

8. **Cortinarius nudipes** Earle in New York Bot. Gard. 1902, p. 343. 313
— Gregarius; pileo 5,5-6,5 cm. diam., convexo-expanso, obtuso, rufo-brunneo, lucenti, disco intense colorato, levi, viscido, margine integro subinflexo; stipite 5 cm., 8-10 mm. æqualiter vel leviter superne incrassato, albido, inferne levi, sordido, cavo; carne albida, in sicco fragili, odore saporeque grato; lamellis heterophyllis, adnatis, postice rotundatis, latiusculis, ad marginem angustatis, ochraceo-cinnamomeis (probabiliter initio pallidis); sporis ellipticis, levibus, $7 \approx 4$ ochraceo-cinnamomeis; cortina fugaci.

Hab. in herbosis, Sanford University Californiæ.

9. **Cortinarius torvus** Fr. — Syll. V pag. 950. — Var. **nobilis** Peck 314
Rep. of the State bot. 1900, pag. 167. — Pileo carnoso, firmo,

convexo vel hemisphærico dein subconvexo v. fere plano, glabro, margine fibrilloso, violaceo v. griseo-violaceo dein griseo v. griseo rubro; carne griseo-alba, sub jove pluvio violacea; sapore grato; lamellis rubro-violaceis dein brunneo-cinnamomeis, distantibus, acie rotundatis; stipite variabili, longo vel brevi, æquali vel basi subincrassato, firmo, cortina alba obvoluto, interdum subannulato griseo, sæpe violaceo variegato.

Hab. gregarius vel subcæspitosus, Westport, Amer. bor.

10. **Cortinarius maculipes** Peck Rep. of the State Bot. 1900, p. 150. 315

— Pileo carnosio, 3,5-6 cm. lato, convexo dein subplano, glabro, tenaci glutinoso, rubro, dein pallido; carne albida; lamellis constrictis, stipatis, rotundatis, subadnatis albidis dein brunneis cinnamomeis; stipite æquali vel superne subconico, 5-7,5 cm. longo, 6-12 mm. crasso, subradicato, solido, farcto, sericeo-fibrilloso, squamoso maculato, sæpe subannulato; sporis ellipsoideis, 7,5-10 × 5-6.

Hab. in silvis in muscosis, Westport, Amer. bor.

11. **Cortinarius elatior** Fr. — Syll. V p. 917. — Var. **pallidifolius** 316

Peck Rep. of the State Bot. 1900, p. 151, tab. G, fig. 22-26. — Pileo carnosio, 2,5-6 cm. lato, convexo, dein subplano, interdum margine revoluto rugulosoque, viscido, subfusco dein ochraceo; lamellis constrictis, stipatis, adnatis vel postice subrotundatis, acie inæqualibus, pallidis dein ochraceis v. cinnamomeis; stipite æquali, solido, viscido, sericeo-tomentoso, albido, lilacino maculato, 5-7,5 cm. longo. 8-12 mm. crasso; sporis oblongo-ellipsoideis, 15-17,5 × 7,5-8,5.

Hab. in silvis, in foliis dejectis, Floodwood, Amer. bor.

12. **Cortinarius erythrojonipus** (Fayod) Sacc. et D. Sacc., *Hydrocybe* 317

erythrojonipoda Fayod in Ann. R. Acc. d'Agric. di Torino 1893, p. 96, Syn. *Ag. erythrojonipes* Fayod in Ann. de Sc. nat. VII ser., t. IX, p. 373. — Formosus, subhygrophanus; pileo conico, umbone excepto, pelliculoso dein expanso, acute umbonulato, 2-3 cm. lat., badio, adpresse bombycino, ad subcyaneum vergente; carne lilacina; lamellis adnatis, melleis, ventricosis (ordine lamellarum 13231) subconfertis; stipite firmo, 3-7 cm. alto, 2-3 mm. cr. ascendente, apice leniter tenuato, lilacino-nitenti, inferne cinnabarino e velo fibrilloso; basidiis 45 × 9, tetrasterigmaticis, parum emergentibus; sporis obovoideis, levibus vel subtiliter granulatis, 7 × 4.

Hab. gregatim ad terram inter Polytricha locis umbrosis, Chiesa della Tanna, Angrogna in alpibus Pedemontii, aut. — Cuticula pilei ex hyphis brevibus inflatis radiatim dispositis conflata,

subhymenium ramoso-pseudoparenchymaticum; cellulæ hymeniales clavatæ.

13. **Cortinarius squarrosus** Clements in Bot. Surv. Nebr. 1901, p. 11. 318

— Pileo carnoso, campanulato dein convexo, sicco, subumbonato, centro squarroso, squamis umbrinis, fibrilloso-fasciculatis, dense vestito usque ad marginem, umbrino-ochroleuco, 2,5-3 cm. diam.; stipite cavo, fibroso-carnoso, flexuoso, subæquali, subsquarroso, fibrillis umbrino-fulvis vestito, 3-4 cm. longo, 5 mm. crasso; lamellis leviter adnatis, ventricosis, interdum stipatis, fulvis vel umbrinis; fibrillis cortinæ umbrinis, fugacibus; sporis irregulariter ellipsoideis, levibus, eguttatis, $12 \approx 6$.

Hab. in herbosis in silvis, Little Blue River, Nebraska, Amer. bor. — Adest forma minori; pileo 12 mm. lato, stipite 16 mm. longo, 2 mm. crasso.

14. **Cortinarius punctifolius** Peck Bull. Torr. Bot. Cl. 1903, p. 96. 319

— Pileo carnoso, margine tenui, convexo v. subplano, sicco, leviter fibrilloso et squamuloso, flavido-brunneo, subinde viridulotincto; carne flava; lamellis latis, subdistantibus, introrsum profunde et abrupte excavatis, adnexis v. subliberis, flavido-brunneis, viridi-tinctis dein cinnamomeis, flavo-punctatis; stipite subæquali, sæpe flexuoso vel irregulari, glabro vel leviter fibrilloso, striato, flavo, cyaneo-viridi-tincto; sporis late ellipsoideis vel subovoideis, $5-7 \approx 4-5$.

Hab. ad terram silvaticam ad pedem Mt. Moscow, Idaho Amer. bor. (HENDERSON). — Pileus 2,5-6 cm lat., stipes 2,5-5 cm. long., 5-10 mm. cr. Lamellis flavo-punctatis mox dignoscitur. E sect.

Dermocybe.

PAXILLUS Fr. — Syll. V p. 983, IX p. 135, XVI p. 111.

1. **Paxillus involutus** (Batsch) Fr. — Syll. V p. 987. — Var. **simplex** 320

Peck Rep. of the State bot. 1899, pag. 857. — A typo differt lamellis basi distinctis, nec crispatis, nec anastomosantibus.

Hab. ad terram Minnewaska, Amer. bor.

PHÆOHYGROCYBE P. Henn. in Engl. Bot. Jahrb. 1901, p. 50, Syll.

XVI, p. 1114 (Etym. *phaios* fuscus et *Hygrocybe*). In Tab. comp. p. 8 occupabit n. 119. — Pileus submembranaceo-ceraceus; hymenophorum cum stipite contiguum. Lamellæ acie acutæ, hymenio in massam ceraceam mutando vestitæ nec membranaceæ; basidia clavata, 4-sterigmatica; sporæ globosæ echinatæ, fusciculæ.

1. **Phæohygrocybe Zenkeri** P. Henn. l. c. — Pileo membranaceo, ce- 321
 raceo fragili, convexo expanso, centro depresso; umbilicato, gra-
 nuloso, radiatim sulcato-subtuberculato, citrino, 1-3 cm. diam.;
 stipite fistuloso, tereti vel compresso, sulcato, flexuoso, levi, con-
 color, 2-3 cm. longo, 1,5-3 mm. crasso; lamellis adnatis subdecur-
 rentibus, subdistantibus, ceraceis, crassis, basi venoso-connexis,
 citrinis, 2 mm. latis; basidiis clavatis, 20-25 × 9-12, sterigmatibus 4,
 subulatis, 6-9 μ . long., 1,5 μ . cr.; sporis globosis, dense aculeatis,
 flavo-fusculis, 8-11.

Hab. in ligno putri, Kamerun Africae.

Sect. 4. Melanosporæ.

AGARICUS Linn. em. — Syll. V pag. 996, IX pag. 137, XI p. 69,
 XIV p. 150, XVI p. 113.

1. **Agaricus sphærosporus** Peck Bull. Torr. Bot. Cl. 1904, p. 181. — 322
 Pileo carnosio, firmo, late convexo, leviter centro depresso, glabro,
 albido, cuticula subinde rimosa, margine primitus incurvo, demum
 irregulariter undulato; carne alba immutabili; lamellis tenuibus,
 confertis, postice rotundatis, attingentibus sed liberis, roseis, de-
 mum nigro-brunneis; stipite subæquali, crasso, firmo, solido, recto
 v. curvulo, albido, velo tenui albo, dein fracto, pileique margini
 stipitique adhærente, annulumque fimbriatum mox evanescentem
 formante; sporis globosis v. subglobosis, 7,5-8 × 6-7,5.

Hab. in solo humoso, Denver, Colorado Amer. bor. (STERLING).

— Pileus 7-12 cm. lat.; stipes 3-10 cm. long., 2-3 cm. cr.

2. **Agaricus rufescens** Peck Bull. Torr. Bot. Cl. 1904, p. 180. — 323
 Pileo carnosio, firmo, convexo, margine incurvo, demum subplano,
 levi v. subrimoso et minute fibrilloso, sordide albo, demum ferru-
 gineo, in sicco rubido-brunneo v. badio; carne albida, rupta ru-
 bescente; stipite æquali v. subæquali, firmo, farcto, sericeo, albo,
 vulnerato rubescente, sæpe abrupte bulboso; velo albo, sæpe pilei
 margini stipitique adhærente; sporis ellipsoideis 7-8 × 5-6.

Hab. ad terram humosam in pascuis, Denver Colorado Amer.
 bor. (E. B. STERLING). — *Ag. campestri* var. *rufescenti* affinis.

3. **Agaricus Sterlingii** Peck in the Torr. Bot. Club 1902, p. 73. — 324
 Pileo carnosio, firmo, convexo vel interdum centro subdepresso,
 sericeo vel centro maculato squamoso, pallide brunneo vel griseo-
 brunneo, 5-12 cm. lato; carne brunnea v. alba; lamellis tenuibus,

confertis, liberis, pallide brunneis, dein maturitate brunneo-nigrescentibus; stipite æquali, solido, farcto albido, interdum supra annulum intensius concolori, 2-5 cm. longo, 8-12 mm. crasso; cortina tenui, margine pilei stipitique adhærente; sporis subellipticis, $6-8 \approx 4$.

Hab. cæspitosus ad terram, New Jersey, Amer. bor. (E. B. STERLING).

4. **Agaricus microspermus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 52, 325 sub *Psalliota*, Syll. XVI p. 1114 (nomen). — Pileo carnoso, campanulato expanso, pallido dein griseo-violaceo, atro-brunneo, medio obtuso umbonato, margine levi, 5-9 cm. lato; stipite tereti, farcto, fibroso, pallide cinereo, 5-8 cm. longo, 3 mm. cr., anrulo membranaceo pallido; lamellis subliberis, pallidis cinerescentibus dein atro-brunneis, confertis, lanceolatis; sporis ellipsoideis, atro-brunneis vel atro-purpureis, $4-5 \approx 3$, uniguttulatis.

Hab. ad terram, Kamerun Africae.

5. **Agaricus cretacellus** Atkinson in Journ. of Mycol. 1902, p. 110. 326 — Gregarius 5-8 cm. altus, pileo 4-7 cm. lato, albo, convexo-expanso, crasso, levi, subviscido, interdum maculis minutis luteolis consperso; carne alba, interdum roseo tincta; lamellis angustis, 3-6 mm., liberis, diu albis dein roseis, lateraliter griseo-brunneis dein nigrescentibus; sporis $4-5 \approx 3$; stipite 6-10 mm. crasso, basi incrassato, albo, solido, supra annulum levi, subtus minute scabroso; annulo persistenti, albo, superne levi, in pag. inferiore floccoso; sapore odoreque amygdalino ut in *Ag. arvensi* Schaeff.

Hab. in silvis, Cascadilla creek, Ithaca, N. Y. Amer. bor.

6. **Agaricus rimosus** (P. Henn.) Sacc. et D. Sacc., *Psalliota* P. Henn. 327 F. Indiæ orient. II, in Hedw. 1901, pag. 331. — Pileo carnoso, campanulato-expanso, obtuso, centro rugoso-fusco, pallido, radiatim fusco-badio striato rimoseque squamuloso, 3-8 cm. diam.; stipite fistuloso, tereti striato, fusco-brunneo, 3-8 cm. long., 0.5-1 cm. cr., basi incrassato, annulo amplo membranaceo-squamoso; lamellis liberis, confertis, lanceolatis, angustis ex pallido badiis; sporis ellipsoideis, $4-7.5 \approx 3$, rufo-brunneis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

7. **Agaricus Woodrowii** Massee in Kew. Bull. 1901, p. 151. — Pileo 328 subgloboso, glabro, primitus levi dein centro rimoso-areolato, ex albido fuscescenti, 3-5 cm. lato; carne 1 cm. lata, fuscescenti; lamellis confertis, liberis sed approximatis, umbrinis; stipite ventricosus, albido, deorsum fuscescenti, glabro, 3-5 cm. longo, annulo

supero, evanescenti donato; sporis ellipticis, glabris, umbrinis, 8 × 5.

Hab. ad terram, Poom, prov. Bombay Indiæ britannicæ. —
Edulis, *Ag. silvatico* Schaeff. affinis.

8. *Agaricus solidipes* Peck Bull. Torr. Bot. Cl. 1904, pag. 180. — 329

Pileo carnoso, firmo, convexo, squamoso v. rimoso, albo v. albido, margine involuto; carne alba, immutabili, sapore dulci; lamellis crebris, liberis, e rubello dein sepiaceis, demum brunneo-nigriscantibus; stipite brevissimo, æquali v. uno apice tenuato, glabro, solido, albo v. albido; velo albo tenui, sæpe margini pilei omnino adhærente; sporis ellipsoideis, 8-10 × 5-6.

Hab. in pascuis, Colorado Amer. bor. — Pileus 2-7 cm. lat.; stipes 2-4 cm. long., 6-10 mm. cr. Pileo squamoso, margine involuto sæpeque appendiculato, stipiteque solido brevi facile dignoscenda species.

9. *Agaricus comosus* (P. Henn.) Sacc. et D. Sacc., *Psalliota* P. Henn. 330

F. Indiæ or. II, in Hedw. 1901, pag. 331. — Pileo carnosulo ex ovoideo-campanulato dein explanato, vertice obtuso umbonato, rugoso-comoso, squamis obscurioribus membranaceis, adpressis, farinoso, albido, rubescente, 1-3 cm. diam.; stipite fistuloso, cylindraceo æquali, usque ad 5 mm. longo, 1-3 mm. cr., farinaceo, pallido dein rufescente; annulo membranaceo, pallido, evanescente; lamellis liberis, confertis, lanceolatis, usque ad 2 mm. latis, pallidis dein atris; sporis ellipsoideis, fusco-brunneis, 5-6 × 3,5-4.

Hab. ad terram, Saharanpur-Garden, Indiæ orient.

10. *Agaricus exstinctoriiformis* Borszcz. in A. Th. Middendorf-reise in 331

den äussersten Norden und Osten Sibiriens, Band. I, Eh. 2, St. Petersburg 1850, p. 144. — Pileo carnoso, e conico hemisphærico-umbonato, levi, viscoso, ochraceo-fulvescente; lamellis subliberis angustis, nigro-fuscis; stipite subfistuloso, glabro, basi in bulbum oblongum desinente, sursum supra annulum laceratum, patulum albo-pulverulento.

Hab. in locis graminosis, ad fl. Uda in Sibiria. — Pileus junior exacte conicus, adultus conico-hemisphæricus v. potius hemisphæricus acute umbonatus, tenuis, levis, viscosus, 27 mm. latus, 14-16 mm. altus, ochraceo-rufescens, immutabilis! Lamellæ vix 2-2,5 mm. latæ subliberæ, nigro-fuscae. Stipes 5-7 cm. alt., 4-5 mm. cr. subfistulosus, sat tenax, passim flexuosus amœne cinnamomeus, basi bulbo oblongo instructus, apice difute cinnamomeus v. pallidus albo-pulverulentus. Annulus laceratus subfugax, reflexo-patulus,

albidus. Insignis videtur; ab *Agar. luteonitenti* Fl. Dan. bene diversus.

11. *Agaricus cothurnatus* Peck Bull. Tor. Bot. Cl. 1904, p. 181. — 332

Pileo carnoso, convexo, margine involuto, sicco, glabro v. margine minute pulverulento, calceo-albo, carne alba; lamellis confertis, liberis, ex castaneo nigricantibus; stipite subæquali, albo, basi fibris radicalibus copiosis obsito, veloque albo, annulum caliciformem sursum laceratum formante, cincto; sporis subglobosis, $8-9 \times 7-8$.

Hab. in terra humosa juxta vias Denver, Colorado, Amer. bor. (E. B. STERLING). — Lamellis iditio theobrominis, stipiteque basi subvaginato species mox dignoscitur.

12. *Agaricus nanus* (Masse) Sacc. et D. Sacc., *Psalliota* Massee in 333

Kew. Bull. 1901, pag. 152. — Pileo e convexo explanato, levi, glabro, sicco, albedo, 1-2 cm. lato; lamellis confertis, angustis, adnatis, purpureo-brunneis, acie integris concoloribus; stipite 3 cm. longo, vix 1 mm. crasso, fistuloso, candido; sporis ellipsoideis, levibus, purpureo-brunneis, 9×7 .

Hab. ad terram Poona, prov. Bombay Indiæ Britannicæ (WOODROW). — *P. obtusato* Fr. affinis.

13. *Agaricus pusillus* Peck Rep. of the State Bot. 1900, p. 152. — 334

Pileo carnoso, fragili, convexo dein plano, interdum subdepresso v. centro subumbilicato, floccoso-fibrilloso, pallide griseo-brunneo maculis ferrugineis vel luteis consperso, centro intense brunneo, 1-5 cm. lato; carne albida, odore saporeque amygdalino; lamellis angustis, adnatis, liberis, subventricosus, fragilibus, initio griseis dein roseis, postremo brunneis; stipite 12-24 mm. longo, 2-6 mm. crasso, æquali, superne sæpe incrassatulo, inferne bulboso e farcto cavo, subfibrilloso, albo; annulo interdum evanescente; sporis late ellipticis vel subglobosis, 5×3 .

Hab. in pratis fertilibus, Delhi, Amer. bor. (S. SHERWOOD).

STROPHARIA Fr. — Syll. V p. 1012, IX p. 138, XI p. 70, XIV p. 151, XVI p. 119.

1. *Stropharia hypholomoides* P. Henn. in Engl. Bot. Jahrb. 1901, 335

p. 52, Syll. XVI p. 1114 (nomen). — Pileo carnoso, campanulato convexo, obtuso, cinereo-flavo, levi, glabro, centro brunneolo, margine pallido, 3-6 cm diam., stipite fistuloso, tereti, levi, 4-8 mm. longo, 4-5 mm. cr., pallido, annulo membranaceo, albedo; lamellis adnatis, confertis, pallide flavis dein atro-violaceis; sporis ellipsoideis v. ovoideis, $5,5-7 \times 3,5-4$, atro-violaceis, levibus.

Hab. ad radices arborum, Kamerun Afr.

2. *Stropharia coprinophila* Atkinson in Journ. of Mycol. 1902, p. 118. 336

— Cæspitosa, 3-7 cm. alta; pileo 2-6 cm. lato; convexo-expanso, interdum margine elevato, carnosio, 2-3 mm. crasso, margine tenui, sordide albo, tenuissime floccoso, sæpe multis squamis vestito, margine appendiculato; lamellis adnatis, subsinuatis, 4-6 mm. latis, griseis vel intense brunneis, margine albis; sporis nigrescentibus v. subpurpureis, ovato-oblongis v. ellipsoideis, levibus, $7-8 \times 3,5-4,5$; basidiis clavatis, $30-35 \times 6-8$, 4-sporis; cystidiis clavatis vel subventricosis, $60-65 \times 10-12$; stipite carnosio, 6-15 mm. crasso, farcto, cavo, æquali vel sæpe basi incrassatulo, albido, fibroso-striato, floccoso; annulo delicatulo.

Hab. in Coprini atramentario parasitica, Ithaca Flats, N. Y. Amer. bor. et in St. Paul, Minnesota, Amer. bor. — Sapor *Coprini atramentarii*.

3. *Stropharia lepiotoides* P. Henn. in Engl. Bot. Jahrb. 1901, p. 52. 337

Syll. XVI, p. 1115 (nomen). — Pileo carnosulo, ex ovoideo campanulato, cinereo-flavescente, radiato-striato, levi, centro umbonato, fusco-brunneo, 2-4 cm. diam.; stipite farcto, pallido brunnescente, striatulo, 3-6 cm. longo, $1\frac{1}{2}$ -2 cm. cr., medio annulo membranaceo; amplo, albido; lamellis adnatis, confertis, lanceolatis, primo pallidis dein nigrescentibus; sporis ellipsoideis, levibus, brunneo-violaceis, $5-7 \times 4$.

Hab. ad folia putrida, Kamerun Afr.

4. *Stropharia psathyroidea* P. Henn. F. Indiæ or. II, in Hedw. 338

1901, p. 330. — Pileo submembranaceo, convexo explanato, apice obtuso, levi, glabro, pallide brunneo, margine obsolete striato, 3-3,5 cm. diam.; stipite cavo, tereti, æquali, levi, glabro, stramineo, annulo membranaceo-floccoso, lacerato, fugaci, 6-7 cm. longo, 3-4 mm. crasso; lamellis sinuoso-adnatis, fusco-brunneis, 1-1,5 mm. latis; sporis ellipsoideis, fusco-purpureis, levibus, $5-6,5 \times 4$.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

5. *Stropharia magnivelaris* Peck in Harrim. Alaska Exped. Crypt. 339

p. 44. — Pileo convexo demum subplano, interdum umbonato, glabro v. obscure radiato-fibrilloso v. fibrilloso-squamuloso, fibrillis innatis, sicco ochraceo-fulvo; lamellis subconfertis, maturis brunneo-nigricantibus; stipite longo, gracili, glabro, solido, basi incrassatulo, albido; annulo late membranaceo, albo, persistente; sporis ellipsoideo-oblongis, $14-16 \times 7-8$.

Hab. ad terram, Yakutat, Alaska (TRELEASE). — Pileus 2-3 cm.

lat., stipes 5-7 cm. long., 2-4 mm. cr. Annulo amplo, firmo, albo mox dignoscenda species.

6. **Stropharia grisea** P. Henn. Fung. S. Paulens III, p. 204 (Hedw. 340 1904). — Pileo carnosulo, convexo-campanulato, obtuso, griseo, subnitenti, levi, glabro, margine striatulo, centro obscuriori, $1\frac{1}{2}$ -2 cm, diam.; stipite subfistuloso, tereti, pallido, levi, glabro, annulo membranaceo, persistenti, albido; lamellis adnexis, confertis, inæquilongis, ventricosis, pallidis dein fusco-cinnamomeis; sporis ellipsoideis, fusco-atris, 1-guttulatis, levibus, $4-5 \approx 3$.

Hab. ad fragmenta vegetabilia putrida, Serra da Cantareira St. Paulo Brasiliæ. — Affinis *Str. inunctæ* affinis, sed satis diversa.

7. **Stropharia rhombispora** v. Hönnel in Annales Mycol 1902, I, 341 p. 393. — Pileo applanato-convexo, umbone deficiente, membrana detrahenda, lutescenti-brunneo, levi, paullum glutinoso, imprimis versus marginem squamulis albis, furfureo-fibrillosis, cito evanescentibus, adnatis oblecto, circ. 15 mm. alt., 4-5 mm. alto, tenuiter carnosulo, intus consistentia tenaci et brunnescente, parte pilei marginali albido-floccosa, vix inflexa; stipite cavo, tenaci, brunneolo-carnosulo, cylindrico, plerumque curvato, supra annulo exiguo, squamoso-floccoso instructo, brunneolo, undique indumento albido, fibrilloso-microsquamoso oblecto, infra tantum leviter incrassato, non radicante, 30-40 mm. long., 2-3 mm. crasso; stipitibus plerumque binis vel paucis conjunctis ex hypharum tomento, membranam albam formante, orientibus; lamellis haud approximatis, remotiusculis, ad 2 mm. lat., plano-adnatis, vix emarginatis, cum dentibus decurrentibus, brunneolis sed paulum in colorem violaceum vergentibus, acie alba, tenuiter crenulata; sporis acervatis nigro-violaceis, singulis pellucido-violaceis, plerumque 6-7 μ . long., 5-6 μ . latis, 3 μ . crassis, applanato-rhomboideis, subcordatis, supra papilliferis, infra cuneatis; cystidiis solum in lamellarum margine evolutis, rigidis, filiformibus, infra paulo latioribus ibique anguste conicis vel leviter clavatis, apice obtusiusculis.

Hab. in foliis dejectis, siccis Fagi in silvis ad pedem montis Wexen et ad montem Rehgrabenberg dictum, Wiener Wald Austriæ inferioris.

8. **Stropharia Staudtiana** P. Henn. in Engl. Bot. Jahrb. 1901, p. 51. 342 — Syll. XVI, p. 1114 (nomen). — Pileo subcarnosulo, campanulato-expanso, pallide brunneo, obtuso-umbonato 1-2,5 cm. diam., striatulo; stipite fistuloso, gracili, tereti, 5-10 cm. longo, 1-2 mm. cr., pallido, striatulo, annulo amplo membranaceo, persistente, al-

bido; lamellis adnatis, confertis, pallidis dein fusciscentibus; sporis ellipsoideis, atro-rufis, levibus $5,5-7,5 \approx 4-4,5$.

Hab. ad terram, Kamerun Afr.

9. *Stropharia depilata* Pers. Syn. p. 408. — Syll. V, p. 1012.

Hab. quoque ad truncos Pini silv. et Betulæ, in Polonia. — Species hæc *Stropharia ceruginosa* Curt. proxima, a qua in statu sicco specimina minora vix distinguenda. Statura tamen generatim multo major et etiam spora differt, quæ subamygdaliformis, apice truncata, $10-12 \approx 5-6\frac{1}{2}$. Specimina vidi pileo 14 cm. lato, stipite 15 cm. longo, apice 3-4 cm. crasso, infra annulum pulcre albo-squamuloso (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 71).

10. *Stropharia siccipes* Karst — Syll. V, p. 1022. — var. *radicata* ³¹³ Peck in Rep. of the State botanist, 1902, p. 37. — A typo differt stipite longe radicato.

Hab. in horto botanico, New York, Amer. bor. (F. S. EARLE).

HYPHOLOMA Fr. — Syll. V p. 1027, IX p. 139, XI p. 71, XIV p. 152, XVI p. 121.

1. *Hypholoma californicum* Earle in New York bot. Gard. 1902, ³⁴⁴ p. 344. — Dense cæspitosum; pileo subtili, 5-5,5 cm. diam. convexo, dein expanso et subumbonato, intense brunneo, levi, hygrophano, margine integro, in sicco obscuro striato; pileo 7-10 cm., 4-5 mm., æquali, glabro sed raro irregulariter inflato, sordido, albedo et maculis brunneis consperso, cartilagineo, cavo, fragili, sæpe fisso; carne pallide brunnea, colore saporeque grato; lamellis adnatis vel subliberis, leviter ventricosis, pallide brunneis; sporis intense rubro-brunneis, oblongo-ellipticis $5-6 \approx 3$; cortina albida, fibrillosa; fibrillis ad marginem confertis.

Hab. ad basim truncorum Quercus in silvis prope Palo Alto Californiæ.

2. *Hypholoma pecosense* Cockerell in Journ. of Mycol. 1904, p. 108. — ³⁴⁵ Pileo leviter convexo, centro subconico, 2,5-4 cm. diam., margine subverticali, levi, viscidulo, numquam squamoso v. sericeo, cremeo-albo, centro subochraceo, sed semper pallido, margine ex veli residuis flavido-squamuloso; lamellis pallide griseo-purpureis, postice albidis, acie albo-furfuracea; stipite 5-9 cm. longo, flavido-albo, v. pallidissime ochraceo ob lamellas leviter decurrentes summo apice striatulo, et albo-furfurello, ceterum glabro nitidulo, sursum fistuloso; carne dulci, colore immutabili; sporis purpureo-brunneis, dein omnino atris, ovoideis, $12 \approx 8$.

Hab. ad terram, Pecos, New Mexico (M. GRABHAM).

3. **Hypholoma pseudostorea** (W. G. Smith) Sacc. *Agaricus pseudostorea* W. G. Smith, Journ. of Bot. 1903, p. 386. — Pileo convexo obtuso v. subumbonato, dein expanso, carnoso, initio purpureo-brunneo, centro obscuriore, mox in squamas latas purpureo-brunneas fibrillosas diffracto, sub squamis ex albo fulvello; stipite cavo æquali v. deorsum attenuato, primitus levi dein sericeo-brunneo-fibrilloso, sursum albo, infra pallide flavo; lamellis adnatis, albis, dein roseis, demum brunneis v. purpureo-brunneis, non plorantibus; sporis 5-7 \times 2,5-3. 346

Hab. in silvis, sub Laricibus etc. in Britannia. — Vulgo cæspitosum, rarius solitarium; sapor parum gratus, tenuis; odor fortis nauseosus. *H. lacrimabundo* affine.

4. **Hypholoma aggregatum** Peck — Syll. XI, p. 71. — var. **sericeum** Peck in Rep. of the State botanist 1901, p. 965. — Pileo sericeo-fibrilloso, squamis maculisque destituto. Cetera ut in typo. 347

Hab. in silvis, North Bolton, Amer. bor.

PSILOCYBE Fr. — Syll. V pag. 1043, IX p. 140, XI p. 72, XIV p. 154, XVI p. 124.

1. **Psilocybe tristis** P. Henn. F. Indiæ or. II, in Hedw. 1901, p. 330. — Carnosula; pileo campanulato dein expanso, centro subumbonato, obtuso, obscuriori, radiato-striato, velutino-squamosulo, 5-8 cm.; stipite sæpe late compresso, levi, glabro, pallide brunneo 10-13 mm. longo, 1-1,5 mm. cr.; lamellis liberis vix confertis ca. 1 mm. latis, utrinque attenuatis, fusco-cinnamomeis; sporis oblique ovoideis, basi apiculatis, 4 \times 3-3,5, fuscis. 348

Hab. ad terram, Saharanpur-Garden Indiæ orient.

2. **Psilocybe citrina** Massee in Kew Bull. 1901, pag. 162. — Pileo primo subgloboso, margine stipite contiguo subinvoluta, dein campanulato-expanso, submembranaceo, levi, glabro, læte citrino, 3 cm. lato; lamellis confertis, attenuato-annexis, lætis, purpureo-brunneis; stipite tereti, levi, glabro, pileo concolori, 4 cm. longo, 3 mm. crasso; sporis oblique ovoideis, glabris, purpureo-brunneis 7 \times 4. 349

Hab. ad terram in horto botanico, Aburi, Gold Coast Africa occident.

3. **Psilocybe unicolor** Peck Rep. of the State bot. 1899, p. 845. — Pileo tenui, subconvexo, hygrophano, striatulo, brunneo; in sicco pallide brunneo vel albicante 12-20 mm. lato; carne alba, sapore. 350

ingratulo; lamellis constrictis, tenuibus, stipatis, adnatis, brunneis dein intense coloratis; stipite brevi, recto vel curvo, æquali, glabro, cavo vel farcto, brunneo, 16-24 mm. longo, 2 mm. crasso; sporis brunneis, ellipsoideis $6 \approx 3,3$.

Hab. in truncis dejectis, in silvis, Savannah, Amer. bor. —

Ps. camptopodi affinis.

4. **Psilocybe tuberosa** Karst. Fungi novi Loennb. 1904, p. 2 (Finska 351
 Vetensk. Soc.). — Pileo carnosulo, conico-campanulato, demum convexo-explanato glabro, striato (siccitate sæpe sulcato), sicco fulvo, circiter 2 cm. lato; stipite subæquali, fistuloso, glabrescenti, vulgo sulcato scissoque, pallescenti, 5-6 cm. longo, circiter 2 mm. crasso; lamellis adnaxis, confertis sat angustis, fuscis.

Hab. in nemore prope oppidum Ufo Rossia, Junio 1902. Legit cl. J. G. OKSANEW. — Species singularis. Pilei ut plurimum complures e tubere albido terræ immerso enati.

PSATHYRA Fr. — Syll. V pag. 1060, IX p. 142, XI p. 73, XIV p. 154, XVI p. 126.

1. **Psathyra conica** Peck Rep. of the State bot. 1900, p. 153, tab. H, 352
 fig. 17-22. — Pileo tenui, conico, raro convexo, glabro, hygrophano, intense brunneo, in sicco pallide ochraceo, 8-12 mm. lato; lamellis latis, stipatis, adnatis, albo-pallidis, dein maturitate intense brunneis, margine albo-flocculosi; stipite filiformi, cavo, sericeo-fibrilloso, brunneo, 2,5-3,5 cm. longo, 1 mm. crasso; sporis ellipsoideis, 5-6 \approx 4.

Hab. in truncis emortuis Abietis, Floodwood, Amer. bor.

2. **Psathyra musicola** P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. 353
 XXVIII, p. 36. — Pileo carnosulo, excentrico, convexo dein subresupinato, pallido, griseo-fuscescente, levi, glabro, pruinoso, 2-4 mm. diam.; stipite excentrico, brevi, curvulo, 2-3 mm. longo, 0,5-0,7 mm. cr., pallido, levi, basi albido-byssino; lamellis sinuoso-adnatis, vix decurrentibus, subconfertis, inæquilongis, ventricosis, primo pallidis, dein atrofuscis; sporis ellipsoideis, basi oblique apiculatis 1-guttulatis, flavo-brunneis, fuscis 6-6,5 \approx 4-4,5.

Hab. in foliis Musæ sapientum, Usambara (KUMMER).

COPRINUS Pers. — Syll. V pag. 1078, IX p. 144, XI p. 75, XIV p. 156, XVI, p. 128.

1. **Coprinus semianus** Pat. Bull. Soc. Mycol. 1904, p. 53. — Solita- 354
 rius v. aggregatus; pileo carnosulo ovoideo vel cylindraco, apice

rotundato-obtusum, albido, squamis crassis adpressis flavo-ochraceis sursum consperso; lamellis latis, inæqualibus, albis dein nigris; sporis coacervatis brunneo-flavidis, sub microscopio flavo-fuliginosis. ovoideis v. subglobosis, $8-10 \times 6-8$; stipite sursum carnoso, deorsum indurato subligneo, albido, cylindrico, levi, parce minute adpresse squamuloso, basi sensim bulbosa radicante; annulo et volva nullis.

Hab. in alveis pr. Laghonat Algeriæ (Cap. SEM). — 7-12 cm. alt., stipes basi 2 cm., sursum 10 mm. cr. *C. ovato* et *C. imbricato* proximus, sporis rotundioribus aliterque coloratis distinguendus.

2. ***Coprinus dryophilus*** Pat. Champ. Algero-Tunis, in Bull. Soc. Myc. de France T. XVIII, 1902, fasc. I. — Pileo campanulato convexo, luteo-citrino, centro rubro-pallido, carnoso 4-7 cm. lato, squamis distantibus rubris consperso, margine striato; lamellis stipitis, nigris; sporis ovoideo-citriformibus, sub microscopio brunneis, levibus $10-12 \times 7-8$; stipite tenaci cylindraceo, basi attenuato, concolore, striatulo, paullo squamoso, cavo.

Hab. cæspitosus in truncis *Quercus* El Feidia Algeriæ.

3. ***Coprinus miniato-flexuosus*** Bres. et Pat. in Lloyd Myc. Not. n. 6, 1901, p. 49. — Pileo submembranaceo ex ovoideo campanulato, fulvello, rimoso-sulcato, squamulis miniatis eleganter obsito, glabrescente, 1,5-3 cm. lato; lamellis ex albido fuscis, postice ex adnato liberis; stipite cavo subconcolore, 3-5 cm. longo, 3-5 mm. cr.; sporis ellipsoideis, $5-7 \times 4-4,5$, fulvis, binucleatis, nucleis flavis.

Hab. ad terram in insula Samoa Polynesia.

4. ***Coprinus pseudo-domesticus*** P. Henn. in Engl. Bot. Jahrb. 1901, p. 51. — Syll. XVI, p. 1115 (nomen). — Pileo submembranaceo, ex ovato campanulato-obtusum, vertice subdiscoideo, pallido, carnoso-incrassato, umbilicato, fusco, radiatim striato-sulcato, cinereo, margine fisso 1,5-4 cm. diam.; stipite cavo, cylindraceo albo, levi, glabro 2-8 cm. longo, 5-8 mm. cr. d. mycelio filiformi repente brunneo oriente; lamellis subcollariato-adnatis confertis, subcineis dein atris; cystidiis cylindraceo-clavatis $30-40 \times 18-20$; sporis ellipsoideis, fuscis, levibus, $4-5 \times 3-6$.

Hab. ad terram, Kamerun Afr.

5. ***Coprinus Chaignoni*** Patouill. in Bull. Soc. Myc. de France 1903, fasc. 3, p. 246. — Subcæspitosus; pileo tenui, carnoso, ex ovato conico-expanso, campanulato dein explanato, striato sulcato, velo universali ochraceo, furfuraceo, sub lente squamuloso-imbricato,

margine evanescenti, apice persistenti tecto; stipite albido, gracili, basi e volvæ residuis ochraceis cupulato; lamellis angustis, atris; sporis ovoideis, nigrescentibus, 10×5 .

Hab. ad terram arenosam Bir m' Chegga Algeriæ (Cl. DE CHAIGNON). — Affinis *C. cinerato*. Pileus 15-20 mm. lat., 6-10 mm. alt.; stipes 2 cm. longus.

6. *Coprinus straminis* E. B. Copeland, Ann. Mycol. 1904, p. 2, f. 4. 359

— Pileo ovoideo v. ellipsoideo, dein conico, 2-5 cm. lato, sulcato-striato, disco levi 1 cm. lat., vulgo stramineo rarius brunneolo v. albo, demum nigro, minute tomentoso diu continuo, dein deliquescento inter lamellas fisso, pellicula medio 2 mm. cr.; lamellis confertis, 2-5 mm. latis, adnatis; stipite 3-8 cm. alto, 4-5 mm. cr., uniformiter levi, albo, basi subincrassato obsolete volvato, anulo nullo; cystidiis 90×40 ; sporis 12-14 \times 7-8, nigris.

Hab. in stramine vetusto putri, Stanford University, California, vere.

7. *Coprinus alnicola* E. B. Copeland, Ann. Mycol. 1904, p. 2, fig. 5. 360

— Pileo campanulato-conico, 3-7 mm. lato, 3-5 mm. alto, sulcato-striato, glabro, albo v. brunneolo, dein sensim nigricanti fragili; lamellis paucis, adnatis; stipite evolvato, 2-5 cm. alto, 1-2 mm. cr., cavo; cystidiis nullis; sporis atro-brunneis, coacervatis nigricantibus, $7 \times 3-3.5$.

Hab. ad truncos et ramos emortuos dejectos, præsertim *Alni rhombifoliæ* Stanford University Californiæ vere.

8. *Coprinus fuscusporus* E. B. Copeland, Ann. Mycol. 1904, p. 2, 361

fig. 2-3. — Pileo cupuliformi, crassiusculo, 6 cm. circ. diam. et 4 cm. alt., pellicula 1-2 mm. cr., aquoso brunnea, striata, squamuloso-furfuracea; lamellis stipiti adhærentibus, dein liberis, 7 mm. et amplius latis; stipite 8-14 cm. alt., 1 cm. cr., subcartilagineo et extus submucoso, basi subincrassato et volva rudimentali cincto; cystidiis 120-130 \times 50 oculo nudo conspicuis; sporis ovoideis, 7-8 \times 4, atro-brunneis, non nigris.

Hab. in cineribus ligneis in Arboreto Stanford University, California, vere.

9. *Coprinus Stanfordianus* E. B. Copeland, Ann. Mycol. 1904, p. 1, 362

f. 1. — Pileo tereti-ovoideo, demum conico-campanulato, margine demum elevato, secundum lamellas profunde fisso, centro 2-4 mm. cr., primitus sericeo, ad strias rufo-brunneo; lamellis 3-5 mm. lat. liberis, acie alba, brunneo-rubentibus, demum nigris; stipite cylindraceo 12-20 cm. alto, cavo, albo, sericeo, basi vix dilatato

et volva adhærente margine vero libera et lobulata; sporis ovoideis 10-15 \approx 8-9, levibus, nigricantibus; cystidiis nullis.

Hab. ad terram in arboreto Stanford University, California, vere. — *Copr. comato, sterquilino et calyptrato* affinis, sed notis datis sat diversus.

10. **Coprinus Gibbsii** Massee et Crossl., The Naturalist, 1902, p. 1. — 363

Pileo minuto, 0,5 cm. diam., hemisphærico dein expanso, striato, glabro, pallide ochraceo, disco obscuriori; lamellis adnatis, 5-7-confertis; sporis subcircularibus, compressis, levibus, rubro-brunneis 8-9 μ . diam., 5 μ . cr.; cystidiis subpiriformibus 40 \approx 25; stipite 4-7 mm. longo, tenuissimo, albo, pellucido, glabro, basi mycelio albido obvoluto.

Hab. in fimo equino prope Sheffield, in Britannia (T. Gibbs). — *C. radiato* Berk. affinis.

PANÆOLUS Fr. — Syll. V p. 1118, IX p. 147, XI p. 77, XIV p. 161, XVI p. 134.

1. **Panæolus albellus** Massee in Bot. Tidsskrift-Copenhagen 1902, 364

vol. 24, p. 216. — Pileo carnosulo e convexo-campanulato, expanso, livido, dein albello, glabro, 2-3 cm. lato; lamellis confertis, postice attenuato-adnatis, fuliginosis; sporis ellipsoideis utrinque apiculatis, atro-fuscis 20 \approx 10; stipite e farcto cavo, sursum attenuato, fibrilloso, pubescente, pallido, 7-10 cm. alto.

Hab. in fimo bubalino, Siam Asiæ merid. — *Pan. campanulato* L. affinis.

2. **Panæolus alveolatus** Peck Rep. of the State bot. 1900, pag. 153, 365

tab. H, fig. 30 36. — Pileo tenui, fragili, fere convexo, glabro, hygrophano, intense brunneo, in sicco griseo-brunneo alveolato 16-24 mm. lato; carne brunnea; lamellis latis, stipatis, adnatis, subventricosis, nigrescentibus, acie albis; stipite æquali, filiformi, cavo, glabro, apice subpruinoso, pallido 3,5-7,5 cm. longo, 2-4 mm. crasso; sporis nigris, subellipsoideis 12,5-14 \approx 7,5-10.

Hab. in fimo, in silvis, Floodwood, Amer. bor.

3. **Panæolus Regis** De Seym. in Bull. Soc. Myc. de France 1901, 366

p. 209, tab. VIII bis, f. 1 (ex Delile). — Pileo albo-fuscescente, conico expanso, demum plano, glabro, non omnino levi, carnosulo-membranaceo, zona marginali striato-undulata, coronam regularem fingente, 3-4 mm. lata, senio nigricanti ornata; lamellis fuligineo-nigris, 4 mm. latis, ventricosis, confertis, adnatis, lamellulis intermixtis, sub zona marginali pilei insertis; sporis . . . ; stipite

pallescente, levi, fistuloso, fibrillis albis farcto, sub pileo incrassato, 3-4 cm. longo, bulbiloso, radícula insititia, usque 3-5 cm. longa.

Hab. ad terram tritam in horto botanico Montpellier Galliae (DELILE Iconogr. ined.).

PSATHYRELLA Fr. — Syll. V p. 1126, IX p. 149, XI p. 77, XIV p. 162.

1. **Psathyrella fragilis** Earle in New York Bot. Gard. 1902, p. 344. 367
— Gregaria; pileo fragili, subtili, 4-8 mm., subconico, late convexo, brunneo-griseo, dein maturitate pallide griseo, disco intensius concolori, minute furfuraceo, profunde radiato-sulcato usque ad marginem; stipite filiformi 2-3 cm., 0,8-1 mm., æquali vel superne paullo incrassato, albido et levi, inferne minute furfuraceo, pallide griseo cartilagineo, cavo; carne albida; lamellis subliberis, heterophyllis, subdistantibus, ventricosis, pallide griseis, maturitate paullo nigrescentibus; sporis hyalinis, in massa obscurioribus, oblongo-ellipticis, 1-vacuolatis, 8-9 \approx 4-5.

Hab. in foliis dejectis Pini, Stanford University Californiæ.

Psath. disseminata Pers. affinis.

2. **Psathyrella subtilis** (Fr.) Quél. — Syll. V, p. 1135.

Hab. ad fimum, etiam in Polonia. — Sporæ sub micr. fuscorufæ, oblongæ, apice subtruncatæ, 7-8 \approx 3; basidia clavata 15-18 \approx 6-7; cystidia fusoides-ventricosa, utrinque valde attenuata, 28-32 \approx 9-10. A *Psathyrella disseminata*, cui valde affinis, differt statura graciliori, pileo potius striato quam sulcato; sporis aliquantulum longioribus et strictioribus, cystidiis fusiformibus et matrice. In *Psath. disseminata* sporæ 6-7 \approx 3 1/4-4 et cystidia clavata vel ventricosa, apice tantum umbonata. Pili pilei in utraque specie identici (Bresadola Fungi Polonici, in Ann. Mycol. 1903, p. 72).

GOMPHIDIUS Fr. — Syll. V p. 1137, XI p. 68, XIV p. 164, XVI p. 136.

1. **Gomphidius flavipes** Peck Rep. of the State bot. 1900, pag. 153, 368 tab. I, fig. 1-4. — Pileo convexo vel fere plano, viscido, centro minuto tomentoso, margine sericeo-fibrilloso, fusco-roseo, 20-24 mm. lato; lamellis arcuatis, decurrentibus, distantibus, albis; stipite æquali vel superne sæpe constricto, basi attenuato, solido, subfibrilloso, superne albido, alibi pallide luteo intus et in cute

3,5-6 cm. longo, 6-8 mm. crasso; sporis oblongo-fusiformibus, 22,5-30 \approx 6-7,5.

Hab. in silvis, Westport, Amer. bor.

MONTAGNITES Fr. — Syll. V p. 1140, XI p. 79, XVI p. 137.

1. **Montagnites Candollei** Fr. — Syll. V, pag. 1140. — f. *minor* P. 369

Henn. in Hedw. 1901, p. 98. — Volva lacerata; stipite 2-3 cm. longo, 3 mm. ca. lato, levi v. vix lineis distincto, leviter sericeo; pileo 2-2,5 cm. diam., disco ca. 1-1,5 cm. lato; sporis ellipsoideis 5-8 \approx 4-6, levibus, nigris.

Hab. in arenosis in Ægypto. — Var. *coprinoides* P. Henn. Hedw. 1901, p. 98. Syll. XVI, p. 1115 (nomen): pileo subcylindræo, campanulato, dein convexo-plano, ca. 4 cm. alto, 5-6 cm. lato, disco depresso ca. 3 cm. lato, pallido, brunneo-maculato; lamellis liberis, dense radiatis, persistentibus, utrinque obtusis, ca. 0,6-1 cm. latis, atris; stipite æquali cylindræo 4-5 cm. longo, 1-2 cm. cr., intus spongioso-farcto, dein cavo, fibroso-sericeo, extus squamoso-fibroso, albo, basi velato, volva ampla, membranacea, lacerata; basidiis late clavatis ca. 20-25 \approx 10, 2-4-sterigmaticis; sporis ellipsoideis v. late ellipsoideis, primo pallidis, dein atris 7-11 \approx 4-6. — In arenosis Biskra, Algeria.

Fam. 2. Polyporaceæ Fr. *)

BOLETUS Dill. — Syll. VI p. 2, IX p. 150, XI p. 79, XIV, p. 164, XVI p. 138 **).

1. **Boletus sardous** Belli et Sacc. in Bull. Soc. Bot. It. 1903, p. 225. 370
— Pileo convexo, pulvinato, firmo, demum molli et expanso, sub-

*) Cfr. elaboratam monographiam Polyporearum americanarum, incolatam in Bull. of Torr. Bot. Cl. 1903-1904 a cl. W. A. Murrill, ubi tamen plura nomina generica vetusta, indefinita, heterogenea omnino inusitata iterum et perperam sunt restaurata. Iconographiam phototypicam, cum analysi, omnium perdificillis familiæ specierum a cl. Murrill avide exoptamus.

**) Cfr. cl. CH. E. MARTIN monographiam absolutam, eximiis iconibus exornatam, *Le Boletus subtomentosus de la région genevoise*, Berne, 1908, ubi quam plurimæ formæ speciei proteiformis diligentissime illustrantur.

viscoso (humectato), fusco-ferrugineo vel fusco-rubescenti, levi nec squamuloso nec granuloso; stipite exannulato, pallide luteolo vel flavescenti-stramineo, punctato-granuloso, subsquamuloso, basi constanter bulboso; tubulis adnatis, luteo-sulphureis, interdum subvirescentibus, sub vitro irregulariter ellipticis; sporis subfusoido-oblongatis, luteolis $14-16 \times 5-7$.

Hab. in planitie totius insulæ Sardinia ad radices Cisti monspeliensis. — A *B. granulato* Fr. et *B. badio* Fr. differt præsertim stipite basi constanter bulboso, squamuloso et magnitudine sporarum.

2. **Boletus scabripres** Peck in Bull. Torr. Bot. Club 1902, XXIX, 371 p. 555. — Pileo crasso, late convexo, firmo, sicco, glabro, rufo-brunneo; hymenio convexo; tubulis adnatis v. leviter depressis circa stipitem, brunneis; poris minutis rotundis saturatioribus; stipite obtuso, æquali, solido sed intus spongioso, griseo-albido, verruculis copiosis punctiformibus, prominulis, nigris consperso; sporis oblongo-fusoidis, $12-15 \times 4-5$.

Hab. ad terram humosam silvaticam Mont Desert Amer. bor. — Pileus 15 cm. lat.; stipes 10 cm. long., 2-3 cm. cr. *B. scabro* affinis sed verruculæ stipitis copiosiores et adhuc minores.

3. **Boletus Ridleyi** Massee in Kew Bull. 1901, p. 154. — Pileo convexo-plano, levi, glabro, citrino, 2-3 cm. alto; carne alba, lutescenti, sapore dulci; tubulis flavo-virentibus, stipiti adnatis, 3-4 mm. longis; sporis angulatis, amplis; stipite solido subæquali, glabro, supra annulum evanescentem albo, infra citrino, 4 cm. longo, 5-7 mm. crasso; sporis flavo-viridibus, $7-8 \times 5$.

Hab. ad terram, Singapore, Malacca (RIDLEY). — *B. chrysentero* Fr. affinis.

4. **Boletus purpureus** Fr. — Syll. VI, pag. 35. — var. **fumosus** 373 Peck Bull. Torr. Bot. Cl. 1902, vol. 29, p. 554. — A typo differt pileo fumoso-brunneo; carne crenea, tactu cyaneo-virescente; tubulis flavido-viridulis, poris minutis brunneo-rubellis, tactu cyaneo-virescentibus; sporis 10×5 .

Hab. in silvis M.t Desert Amer. bor. — Pileus 4-14 cm. lat.; stipes 4-12 cm. long., 1-2,5 cm. cr.

5. **Boletus pedemontanus** Fayod in Ann. Acc. d' Agric. di Torino 1893, 374 p. 103. — Pileo primo pulvinato, sicco stipiteque amœne carneo v. cupreo; carne alba leniter cyanescente; stratu tubulifero libero, poris minutissimis tubulisque flavo-pallidis, deinde pileo (præcipue locis umbrosis) plus minusve lateritio, cute diffracta areolata vel

squamosa, stipiteque levi concolori; cystidiis hyalinis, dispersis, parvis, piliformibus; sporis pallidis 12 \approx 4.

Hab. solitarius ad terram apricam in quercetis Bricherasio, Roche-plate Pedemontii.

6. **Boletus velatus** (Rostr.) Sacc. et D. Sacc., *Suillus velatus* Rostr. 375
in Bot. Tidsskrift-Copenhagen 1902, vol. 24, pag. 207. — Pileo convexo-plano, rufo-fusco, rimoso-granuloso, 4 cm. lato, margine velo crasso, stellatim fisso ornato; tubulis liberis; poris amplis, angulatis; stipite cylindrico, gracili, levi, 5-6 cm. 0,5-1 cm.; sporis hyalinis, ellipsoideis, apiculatis, sæpe obliquis.

Hab. ad terram, Siam Asiæ merid.

7. **Boletus hygrophanus** (Rostr.) Sacc. et D. Sacc. *Suillus hygrophanus* 376
Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207. — Pileo albo, hygrophano, convexo-plano, initio piloso-squamoso, dein glabro, 2-3 cm. lato; stipite gracili, flexuoso, sursum fibroso squamoso, 5-6 \approx 2-3 cm., cartilagineo, albo, nitido; tubulis liberis; poris mediis inæqualibus, sinuosis; sporis hyalinis, ellipsoideis, 9-10 \approx 5.

Hab. ad terram, Siam Asiæ merid.

8. **Boletus Rostrupii** Syd. Ann. Mycol. 1903, p. 177, *Boletus lacunosus* Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207 nec Otth nec Masee. — Pileo e pulvinato expanso, glabro, levi, alutaceo 4-5 cm.; tubulis liberis, mediis, dilute fuscis; stipite gracili, elongato, cylindrico v. sursum attenuato, profunde areolato-lacunoso, annulato, 10-12 cm. longo; sporis ferrugineis, fusiformibus 13-15 \approx 6-7.

Hab. in arbore cava, Siam, Asiæ merid.

9. **Boletus costatus** Rostr. in Bot. Tidsskrift-Copenhagen 1902, v. 24, 378
p. 207. — Pileo dilute fusco, hemisphærico-pulvinato, levi, glabro, 2 cm. lato; stipite ventricosus, utrinque attenuato, sursum profunde costato-lacunoso, inferne obsolete reticulato, 4-5 \approx 2 cm., basi curvato; tubulis levibus, liberis; poris minutis; sporis oblongis, ferrugineis, subtiliter striatis 18-20 \approx 6-8.

Hab. ad terram, Siam Asiæ merid.

10. **Boletus changensis** (Rostr.) Sacc. et D. Sacc., *Suillus changensis* 379
Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207. — Pileo convexo-plano, rubro, levi, glabro, 2-3 cm. lato; stipite gracili, cylindrico, sæpe compresso, basi incurvo, crassiore; tubulis adnatis; poris mediis sulphureis; sporis hyalinis, oblongis 9 \approx 4; carne secta cyanescente.

Hab. ad terram, Siam Asiæ merid.

11. **Boletus chrysenteron** Fr. — Syll. VI, p. 14. — var. **albocarneus** 380

Peck Rep. of the State bot. 1900, p. 185, tab. 76, fig. 21-25. — Pileo carnosio, superne convexo, sicco, subglabro, rufescenti 2,5-6,5 cm. lato; carne alba, sæpe in superficie rubro tincta; tubulis longiusculis, adnatis, stipitem versus subdepressis, griseo-luteis, acie subrotundis, levibus; stipite æquali, firmo, subglabro, pileo concolori, intus albo, 2,5-5 cm. longo, 4-8 mm. crasso.

Hab. ad terram, Amer. bor. Edulis. — Var. **deformatus** Peck in Rep. of the State botanist 1901, p. 966: pileo tenui 2,5-4 cm. lato, irregulari, rubro vel brunneo-rubro; stipite brevi, sæpe irregulari, ventricosio, latitudine et crassitudine æquali. — In terra uda, Bolton, Amer. bor.

12. **Boletus granulatus** L. — Syll. VI, p. 5. — var. **albidipes** Peck 381

Rep. of the State bot. 1900, pag. 168. — A typo differt, carne pilei albida, sed in proximitate tubulorum luteola; stipite intus et in cute albo.

Hab. in pinetis, Westport, Amer. bor.

13. **Boletus Betula** Beardslee ap. Lloyd Mycol. Not. 1902, n. 10, Se- 382

ptemb. p. 97, cum icone. — Pileo firmo hemisphærico-convexo, rufo-tomentoso vel squamuloso, sæpe rimoso, rubro vel flavido-rubro; carne firma, flavida; tubulis adnatis circa stipitem plerumque depressis, sordide flavis vel flavido-viridibus; poris latiusculis; stipite longo æquali vel sursum attenuato, reticulato-asperato.

Hab. in silvis, in planitie Asheville frequens, Amer. bor. —

Pileus 5-7 cm. latus, stipes 10-25 cm. long., 7-15 mm. crassus.

14. **Boletus Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 44. — 383

Syll. XVI, p. 1115 (nomen). — Pileo carnosio, convexo-plano, pruinoso, atro-castaneo, levi, glabro, 2-3 cm. diam.; stipite cylindraceo, farcto, atropurpureo v. atro-brunneo, striatulo v. subsquamuloso 3-5 cm. longo, 4-6 mm. cr., superne subattenuato; tubulis adnatis subdecurrentibus, 2-5 mm. long., poris rotundato-angulatis ca. 1-1,5 mm. amplis, acie integris, luteis; basidiis clavatis, intus brunneo-granulosis, 24-28 \times 12-15; sporis ellipsoideis v. ovoideo-subfusoides, utrinque obtusis, castaneis v. atro-brunneis, 1-guttulatis, levibus, 12-15 \times 8-13.

Hab. in silvis, Kamerun, Afr.

15. **Boletus umbrosus** Atkinson in Journ. of Mycol. 1902, p. 112. 384

— Pileo convexo dein expanso 5-9 cm. lato, carnosio, subtomentoso, dein areolato ut in *B. subtomentoso*, brunneo dein isabellino;

carne albida dein brunneola; tubulis convexis, initio albis dein pallide brunneis, postremo intense brunneis; stipite concolori 7-8 cm. alto, irregulariter longitudinaliter canaliculato-rugoso, minutissime intense punctulato, basi conico, breviter radicato.

Hab. ad terram, Caynga Lake Amer. bor. (C. H. KAUFFMAN).

16. **Boletus Dupainii** Boud. in Boll. Soc. Myc. de France 1902, n. 2, 385
tab. F, fig. 1. — Pileo carnosio, convexo, luteo ochraceo, non tomentoso, sed glutine, in junioribus, rubro-sanguineo, dein evanescente, omnino tecto; 7-10 cm. lato; tubulis elongatis, olivaceo-lutescentibus, liberis, ore sanguineo, versus marginem luteo-aurantiacis; stipite pleno, crasso, sæpius subbulboso, luteo, non reticulato sed punctis rubris, crebris tecto, ad apicem luteo-aurantiaco ad extremam basim olivascens; carne, etiam stipitis, pallide lutea, sapida, non amara et præcipue circa tubulos cærulescente; sporis oblongis, olivascens, intus guttulosus, 14-15 \times 5-7.

Hab. in silvosis, ad terram calcareo-argillosam prope La Mothe-St-Heray Galliæ.

17. **Boletus chamæleontinus** Atkinson in Journ. of Mycol. 1902, p. 112. 386
— Pileo convexo, crasso, 8-10 cm. lato, subtomentoso vel minute subfloccoso e latere leviter rimoso-areolato ut in *B. scabro*, brunneo; carne albo-lutea, dein rubra vel violacea; tubulis convexis, stipitem versus depresso, initio luteolis dein rubescentibus, maturitate acie rubris, tenuibus, rotundatis vel irregularibus, tactu cyaneis; sporis sub lente olivaceo-luteis, elliptico-oblongis, 12-15 \times 4-5, levibus; stipite superne rubescenti, reticulato vel punctulato (ut in *B. lurido*), æquali vel basi subincrassato; carne centro lutea, externe rubra, tactu cyanea.

Hab. in silvis, Ithaca, N. Y. Amer. bor.

18. **Boletus Bakeri** Tracy et Earle in Plantæ Bakerianæ fasc. I fungi 387
p. 23. — Pileo 10-20 cm. diam., convexo, rubro-lateritio vel roseolo lucenti, viscido, maturitate areolato; carne albida, aeri exposita rubescente; tubulis initio albidis, repletis, planis, dein ventricosis, brunneis, purpureo-cinctis, profunde sinuatis; stipite firmo, inferne incrassatulo, 3-4 cm. cr., superne abrupte conico, 1,5-2 cm. cr., 8-12 cm. long., solido, intus albo, externe albido, superne squamulis brunneis asperso, inferne levi.

Hab. ad terram, Cicken Creek et La Plata, South Colorado, Amer. bor.

19. **Boletus ater** P. Henn in Engl. Bot. Jahrb. 1901, pag. 44. — 388
Syll. XVI, p. 1115 (nomen). — Pileo carnosio convexo-explanato,

sublevi, glabro, pruinoso, atro-violaceo v. atro-olivaceo 2,5-3,5 cm. diam.; stipite farcto, tereti fusco-atro, granuloso 2,5-3 cm. longo, 2,5-3 mm. cr.; tubulis sinuoso-adnatis interdum subdecurrentibus 2-3 mm. long., poris oblongis v. rotundato-angulatis subgyrosis 1-1,5 \approx 1-2 mm. amplis, atro-cinereis, basidiis clavatis 4-sterigmaticis, intus fusco-granulatis; sporis fusoides utrinque acutiusculis, 1-pluriguttulatis 12-14 \approx 5-6, episporio fuscidulo; carne atra.

Hab. ad terram in silvis, Kamerun Afr.

20. **Boletus multipunctus** Peck in Rep. of the State botanist 1901, 389 pag. 952, tab. K, fig. 19-22. — Pileo carnoso convexo vel subplano, sicco brunneo-ochraceo sæpe leviter rubro-tincto, centro maculis multis punctiformibus, minutis donato 7,5-12,5 cm. lato; carne albida, sapore grato; tubulis tenuibus adnatis vel stipitem versus depressis, acie subrotundis, initio albidis, dein griseo-luteolis; stipite æquali vel superne conico, pallido, firmo, fibroso-striato 7,5-12,5 cm. longo, 8-16 mm. crasso; sporis intense olivaceo-griseis, oblongis 11-15 \approx 3-5.

Hab. in silvis, Bolton, Amer. bor.

21. **Boletus griseus** (Quél.) Sacc. et D. Sacc. *Gyroporus griseus* Quél. 390 Assoc. franc. l'Avanc. d. Scienc. 1901, partie II, 1902, p. 495. — Pileo convexo, 5-10 cm. lat., pruinoso, griseo, interdum albo-griseo-marmorato; carne crassa, tenera, alba, sub aere leviter violaceo-fusco-tincta, in stipite virescente, sapidissima; tubulis longis porisque rotundis albis dein griseis; stipite elongato, sat crasso, albido, squamulis cinereis punctato; sporis ellipsoideo-oblongis, 10-15 μ . longis, guttulatis, citrinis.

Hab. in silvis arenosis Gallie, æstate autumno. Videtur species intermedia inter *B. scabrum* et *B. rufum*.

22. **Boletus Torrendii** Bres. Myc. Lusitanici novi, in Atti R. Acc. 391 di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 130. — Pileo pulvinato, purpureo-brunneo vel castaneo, sicco, levi, dein areolato-rimoso, rimis luteis, 8-12 cm. lato; tubulis flavis; stipite ex parte adnatis; poris oblongis, acie obtusa, e flavo rubiginoso-brunneis; stipite solido, ventricosus-fusiformi, flavo, dorsum rubro-maculato, pruinato, haud reticulato, 4-7 cm. longo, 1,5-4 cm. in parte ventricosa crasso, subradicato; carne lutea, fracta ad pileum cærulescente, ad apicem stipitis demum rubescente, odore grato, sapore miti; sporis luteis, subcylindraceutis 6-7 \approx 3-3,5; basidiis clavatis 20-25 \approx 7; cystidiis fusoides 34-36 \approx 8-9.

Hab. ad terram in pinetis pr. Setubal Lusitanie. — *Boleto ru-*

bello Krombh. proximus, sed statura majori, sporis minoribus etc. bene distinctus.

23. **Boletus albidus** (Romagnoli) R. Maire Bull. Soc. bot. de France 392 1901, tom. I, p. 243, tab. XIV, fig. 1 et 2, *Ceratomyces albidus* Romagnoli Ined. — Pileo convexo, circulari, levi, albo 7 cm. diam.; stipite albo, levi, crasso, basi bulboso, annulato, 10 cm. longo; carne alba; tubulis roseis vel rubro-pallidis, non decurrentibus; sporis roseis?

Hab. ad terram, Ponteprato prope Bastia, Corsica (ROMAGNOLI 1840!).

STROBILOMYCES Berk. — Syll. VI p. 49, IX p. 159, XI, p. 81.

1. **Strobilomyces excavatus** (Kalchbr.) P. Henn. F. Austral. II, p. 187. Huc, teste Henn. l. c., spectant *Secotium excavatum* Kalchbr. et *Strobilomyces pallescens* Cooke et Massee. Cf. Syll. VII, p. 55 et IX, p. 159. — Lectus quoque ad Tovamba Queenslandiæ a cl. HARTMANN.

FISTULINELLA P. Henn. in Engl. Bot. Jahrb. 1901, p. 43. — Syll. XVI, p. 1115 (nomen) (Etym. a *Fistulina*, cui affinis). — Pileus carnosus, stipitatus, margine velato-membranaceo, involuto. Hymenium porosum; tubuli cylindracei inter se subliberi et separati. Pileus et stipes Boleti, hymenium *Fistulinæ*.

1. **Fistulinella Staudtii** P. Henn. l. c. pag. 44. — Syll. l. c. — Pileo 393
carnoso, convexo plano, levi, glabro, olivaceo-virescenti, 1, 5 cm. diam., margine membranaceo veliformi, involuto, pallido; stipite centrali, tereti, farcto, carnosus, levi, glabro, albo, ca. 3 cm. longo, 2,5-3 mm. cr., æquali; hymenio pallido, sublibero; tubulis inter se subliberis et discretis c. 3 mm. longis, 350-400 μ . cr., primo apice clausis dein poro rotundato apertis; basidiis clavatis intus granulosis 20-30 \times 5-7; sporis fusoides 1-2-guttulatis, hyalinis 13-16 \times 3,5-4, episporio dilute brunneo.

Hab. in lignis putridis, Kamerun Africae.

POLYPORUS Mich. em. Syll. VI p. 55, IX p. 161, XI p. 82, XIV p. 171, XVI, p. 142.

1. **Polyporus variiporus** Murrill Bull. Torr. Bot. Cl. 1904, p. 37. — 394
Pileo orbiculari convexo-depresso, 1-2,5 \times 0,1-0,2 cm., extus gla-

bro, plus minus radiatim striato, concentrice subrugoso, stramineo-isabellino circa marginem fulvo-castaneo, margine tenui inflexo, undulato, subtiliter sed fugaciter ciliato; contextu 1-1,5 mm. cr. molli, albo; tubulis 0,5 mm. longis, valde irregularibus prope stipitem elongatis nec distincte decurrentibus, flavidis, polygoniis v. sublamellatis, acie firma integra, demum denticulatis v. fimbriatis; sporis ellipsoideis, levibus, hyalinis, 7×4 ; stipite centrali, cavo, sursum incrassato, pileo paullo dilutius, subglabro, sericeo-nitidulo, 2 cm. longo, 2-6 mm. cr., ima basi tomentosa, sæpe nigra.

Hab. ad fragmenta lignea sabulo immersa, Porto Rico (EARLE).

— Affinis *P. tricholomati* sed firmior, stipite crassiore, poris magis irregularibus.

2. **Polyporus Penningtonii** Speg. Myc. argent. ser. II, 1902, p. 52. — 395

Leucoporus; pileo orbiculari e convexulo leniter umbilicato, levissimo, tenui, 50 mm. diam., submembranaceo, margine acuto integro, recto, superne castaneo nitidulo; hymenio pallidius cum pileo concreto; poris majoribus 0,2-0,3 mm. long., 0,3-0,5 mm. diam., rotundato subhexagonio, dissepimentis tenuibus mollibus, acie minute denticulatis, marginem versus sensim brevioribus tenuioribus evanescentibus, in margine ipso subnullis sterilibusque; stipite subconcolore, centrali v. vix subexcentrico, tereti 25 mm. longo, 6-8 mm. diam., intus sordide albo, levi v. vix ruguloso, glabro.

Hab. ad truncos putres *Erythrinæ* crista-galli, Paraná-Guazú in Argentina (S. PENNINGTON). — Species pulchra ad *Favolum* nonnihil vergens.

3. **Polyporus læticolor** (Murr.) Sacc. et D. Sacc., *Scutiger læticolor* 396

Murrill in Bull. Torr. Bot. Club. 1903, p. 428. — Pileo orbiculari centro depresso $10 \times 10 \times 1$ cm., extus glabro, lateritio vel purpureo, margine acuto, initio inflexo, irregulariter undulato; contextu carnosus firmus, pallide roseo, homogeneo 0,75 cm. crasso; tubulis 1-2 mm. long. in quoque millimetro 5, decurrentibus, saturate aurantiacis, poris subcircularibus vel polygoniis, sepimentis tenuibus serius dentatis (præcipue decurrentibus); sporis ovoideis, levibus, hyalinis, copiosis, $5-6 \times 4$; stipite brevi, crasso sursum incrassato $2 \times 1-2,5$ cm., pileo concolore, solido, firmo, carne obscuriore.

Hab. ad terram in Alabama, Amer. bor. (UNDERWOOD).

4. **Polyporus subradicatus** (Murrill) Sacc. et D. Sacc. *Scutiger sub-* 397

radicatus Murrill Bull. Torr. Bot. Cl. 1903, p. 430. — Pileo irregulari convexo v. plano, 12 cm. lat., 0,5 cm. cr., superficie fi-

brilloso avellaneo-isabellino, margine tenuissimo, juniore inflexo, maturo irregulariter undulato; contextu carnosissimo, 1-7 mm. cr., pure lacteo, etiam in sicco; tubulis initio foveolaribus, maturis brevibus et minutis, vix 1 mm. alt., 3-4 in quoque mm., usque ad partem atratam stipitis decurrentibus, albis, siccis flavidis, ore polygonio, regulari, demum subirregulari, acie tenui tandem denticulata v. fimbriata; sporis ovoideo-ellipsoideis, levibus, hyalinis, non copiosis, $5-7 \approx 3-4$; stipite brevi, crasso, centrali, deorsum tenuato, nigro-fuligineo 4 cm. long., 2,5 cm. cr., contextu lacteo, carnosissimo, extus minute tomentosus, sicco rugoso-reticulato.

Hab. ad terram, London Canada (DEARNESS) et New York (OVERACKER). — Subsimilis *P. radicato*.

5. **Polyporus Whiteæ** (Murr.) Sacc. et D. Sacc. *Scutiger Whiteæ* Murrill, Bull. Torr. Cl. 1903, p. 432. — Pileo subcirculari, convexo, centro depresso, 8-10 cm. lat., 0,5-1 cm. cr., pruinoso velutino, ex isabellino fulvo, margine acuto, initio inflexo, maturitate inæqualiter undulato; contextu carnosissimo, sicco roseo, prope tubulos atro-rubro; tubulis 10-30 mm. long., 3 in quoque mm., valde decurrentibus, albis, tactis vetustisque roseis ore subcirculari, acie tenui, fimbriata; sporis ovoideis, hyalinis, levibus, copiosis, $5 \approx 3,5$; stipite brevi, solito excentrico, basi dilatato, 3 cm. long., 2-4 cm. cr. concolore.

Hab. inter muscos ad ripas, Bor Harbor Maine Amer. bor. (Miss V. WHITE). — Cæspitosus, pileo flavido-brunneo, tubis albis dein roseis dignoscendus. Affinis *P. ovino*.

6. **Polyporus Puiggarianus** P. Henn. F. St. Paul. III, p. 200 (Hedw. 1904). — Pileo carnosissimo-spongioso, mesopode, infundibuliformi, omnino ferrugineo, superne subproliferante tuberculato-lobato, rugoso, velutino, ca. 10 cm. lato, 7 cm. longo, 2-3 cm. crasso; stipite centrali, farcto subcylindraceo, compresso, ferrugineo pruinoso, deinde nitenti, fragili, corticato, 4-5 cm. longo, 1-1½ cm. crasso; tubulis sinuoso-adnatis, 5-8 cm. longis, poris rotundato-vel oblongo-angulatis, laceratis, ferrugineis; sporis subglobosis v. ovoideis, 10-14 µ. verrucosis, ferrugineis; carne spongiosa, ferruginea usque ad 2 cm. crassa.

Hab. ad terram (radices?) St. Paulo Brasiliæ (PUIGGARI). — Affinis *P. sistotremoidi* et *P. tubuliformi*, sed sporis brunneis verrucosis etc. distinctus.

7. **Polyporus marmellosensis** P. Henn. F. Amaz. I, p. 178 (Hedw. 400

1904). — Pileo subcarnoso lento, convexo, medio umbilicato, castaneo, subnitenti, radiatim substriato, levi, glabro, ca. 5 cm. diam., margine sinuoso-crenato vel lobato-inciso, lobis triquetris, 2-3 mm. longis; stipite centrali, subtereti, lignescenti, ferrugineo-tomentoso vel squamuloso ca. 7 cm. longo, 3 mm. crasso; poris decurrentibus rotundato-polyhedricis, ca. $1\frac{1}{2}$ -2 mm. amplis, pallide ferrugineis, acie tenuibus integris; sporis globosis, $3-3\frac{1}{2}$ μ . hyalino-fusculis.

Hab. ad terram silvaticam, Rio Madeira ad Marmellos Amazoniæ (ULE). — *P. arculario* affinis, poris valde amplis faviformibus dignoscendus.

8. **Polyporus Cowellii** Murrill Bull. Torr. Bot. Cl. 1904, p. 39. — 401

Pileo orbiculari, convexo-plano, umbilicato, 1-2 cm. lat., 0,2-0,5 mm. cr., extus subglabro, minute concentrice rugoso e stramineo isabellino, demum saturatiore et hygrophano, prope marginem pustuloso v. levi, sæpe leviter lineis albis v. brunneis radiato-striato prope centrum; margine tenuissimo, recto v. inflexo, sæpe ambitu irregulari, tenuiter denticulato, dentibus in cilia productis; contextu tenuissime membranaceo albo-pallido subtranslucido; tubulis 0,2-0,4 mm. long., 3-6 in quoque mm., conflundo crassioribus, adnatis, pallidis, polygonis, acie tenuissime subintegra dein fimbriatula; sporis ellipsoideis, levibus, binucleatis, $5 \approx 2,5$; stipite centrali, solido, gracili, æquali, concolori vel paullo saturatiore, pruinoso v. glabro, levi, longitrorsum striato, 2-3 cm. long., 0,3-1 mm. cr., intus molli, lacteo.

Hab. ad truncos emortuos in insula St. Kitts (BARRON et COWELL) et in Porto Rico (HELLER). — Pileo fere translucido, agaricoideo dignoscenda species.

9. **Polyporus maculosus** Murrill, Bull. Torr. Bot. Cl. 1904, p. 41. — 402

Pileo irregulariter orbiculari, profunde depresso, 3-3,5 \approx 0,1-0,2 cm. extus tenuiter et dense tomentoso, radiatim striato, isabellino, maculis pluribus læte fulvis v. castaneis præcipue inter centrum marginemque sitis ornato, margine tenuissimo, striato, irregulariter fisso, nec dentato nec fimbriato, contextu 0,5-1,5 mm. cr., suberoso-molli, pallido; tubulis 0,2-0,4 mm. long., 6-7 in quoque mm., decurrentibus, pallidis v. flavidis, subcylindræis, acie integra; sporis ovoideis, hyalinis, levibus, $4 \approx 3$ (immaturis visis); stipite centrali, solido, ligneo, sursum tenuato, basi castaneo flavo-pustuloso, inæquali, subglabro, 2 cm. longo, 2-4 mm. cr.

Hab. ad ligna in America centrali (C. L. SMITH). — *P. fisso* affinis, sed minute tomentosus, maculosus etc.

10. **Polyporus holocyaneus** Atkinson in Journ. of Mycol. 1902, p. 117. 403

— Gregarius, 5-7 cm. altus; pileo in sicco intense brunneo vel rufo-brunneo, in statu juvenili rufo vel violaceo-amethystino, 2-6 cm. lato, convexo-expanso, maturitate depresso, margine plus minusve irregulari undulatoque, hygrophano, levi; stipite æquali, superne reticulato, 4-8 mm. crasso, pileo concolori; tubulis latiusculis, angularibus vel irregularibus, margine lacerato-fimbriatis violaceis dein griseo-brunneis; basidiis clavatis 20-25 \times 5-6, 4-sporis; sporis hyalinis, levibus, crasse 1-guttulatis, 4-5 \times 3-4.

Hab. inter acus Coniferarum, ad terram, Blowing Rock N. C., Amer. bor.

11. **Polyporus Götzei** P. Henn. in Engl. Bot. Jahrb. 1901, p. 255, 404

Sacc. Syll. XVI, p. 1115. — Pileo subcarnoso-spongioso, convexo, vertice late umbonato, concentrice zonato sulcatoque, cute rimosa squamuléscente isabellina, in sicco pallide cinerea, subsericea, ca. 12-14 cm. diam., margine interdum crenato v. subsinuoso; hymenio plano, subferrugineo, tubulis longis, adnexis haud decurrentibus, poris rotundato-angulatis ca. 1-2 mm. diam., acie subintegris, ferrugineis; carne albida; basidiis clavatis, 16-20 \times 8-10; sporis subglobosis, ovoideis v. ellipsoideis, 6-9 \times 5-8, episporio dilute flavido; stipite tereti, farcto, basi interdum proliferanti 4-6 cm. longo, 1, 5 mm. crasso, subvelutino, alutaceo e sclerotio, subgloboso, tuberoso, contextu albido, carnoso-fibroso, superficie subareolato, rimoso, sulcato, corticato, ca. 7 cm. diam. oriente.

Hab. ad terram, in silvis Unyika, Afr. orient.

12. **Polyporus Puttemansii** P. Henn. F. S. Paul. III, p. 200 (Hedw. 405

1904). — Pileo e lento subcoriaceo, mesopode, convexo explanato, centro paulo depresso, pallido gilvescente, margine substriato, alutaceo, ca. 2 1/2 cm. diam., 2-2 1/2 mm. crasso, contextu albido; stipite centrali farcto cylindraceo, atro, ferrugineo tomentosus, 3-4 cm. longo, 2-3 mm. crasso, tubulis sinuoso-adnatis, ca. 2 cm. longis, pallidis, poris 1-3 mm. amplis, oblongo- vel rotundato-polyhedricis, acie subfimbriatis; sporis oblongo fusoides hyalinis, 2-guttulatis, 12-15 \times 3 1/2-4.

Hab. ad truncos Iponemæ St. Paulo Brasiliæ. — Ab affini *P. eleganti* consistentia, poris latioribus angulosis sporisque diversis.

13. **Polyporus scutellatus** Borecz. in A. Th. Middendorf-reise in den 406

äussersten Norden und Osten Sibiriens, Band I, Th. 2, St. Petersburg 1850, p. 144. — (*Mesopus*; *Biennes*). Pileo coriaceo-membranaceo orbiculari plano, disco depresso umbilicato, alutaceo-pallido velutino-sericeo zonato radiatim striato; stipite fragili submentoso rufo deorsum incrassato; poris rufo-ferrugineis 5-6-gonis tenuibus, demum denticulato-laceris.

Hab. ad lacum Mar-keľ, ad terram et ad fluv. Ujans (var. β) in Sibiria. — Pileus 1-1 $\frac{3}{4}$ mm. latus, tenuis, margine tenuissimo demum lacerato, eleganter zonatus striatusque, alutaceo-pallidus velutinus, villo sericeo canescenti sparso immixto, senilis sordide cinerescens. Stipes 25 mm. alt., 4-6 mm. crassus, fragilis. Pori rufo-ferruginei 5-6-goni, interdum confluentes. — Var. β . **ramosus**: pileis 2-3 stipitatis, stipite communi brevi, crasso suffultis. Ad *Polyp. parvulum* Klotzsch., boreali americanum non parum accedit.

14. **Polyporus marasmioides** (Pat.) Sacc. et D. Sacc. *Melanopus marasmioides* Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902 — Pileo orbiculari, tenui, molli, integro, convexo-plano, centro profunde umbilicato, ochraceo, glabro, margine obsolete striato, sulco levi circulari peripherico notato, margine recto, acuto, fulvo, pellucido, angusto, puberulo, denticulato; stipite centrali, cylindrico, brunneo-nigro, farcto, intus albo, tenaci, lignoso, fasciculis setulosis, rigidis hispido; hymenio ochraceo, poroso-reticulato; poris latis radiantibus, parum profundis, sepimentis crassis et duris divisis, integris vel denticulato-laceris (irpicoideis), zona marginali sterili, angusta; sporis hyalinis ovoideo-oblongis, $10 \approx 4$, guttulatis.

Hab. ad semina putrida *Meliosmæ Hebertii* in Guadelupa et in trunco *Citharexyli* in insula Martinica (Duss). — Stipes 1 cm. long., interdum usque 10-15 cm. et tunc *Xylarium* simulans. *Favolo melanopodi* proximus.

15. **Polyporus tunetanus** (Pat.) Sacc. et D. Sacc. *Melanopus tunetanus* Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. de France T. XVIII, 1902, fasc. I. — (*Melanopus*). Carnoso-coriaceus, stipitato-mesopus; pileo convexo, ochraceo-pallido, in sicco rubro, squamis latis, distantibus, concoloribus consperso, margine fibrilloso et deinde fisso, ad centrum rimoso; carne firma albida; poris albis, dein rubro-pallidis, angulosis, permagnis, usque ad 50-80 mm. decurrentibus, integris, membrana subtili divisis; sporis cylindraceis 6-8 \approx 3, hyalinis; stipite centrali, elongato, summo apice reticulato deinde velutino, albido, basi nigro v. rubro-nigro.

Hab. in lignis emortuis *Erycæ* et *Arbuti*, El Feidja-Algeria.

16. **Polyporus flexipes** Fr. Epicr. p. 432. — Syll. VI, pag. 69. — 409

var. *myriensis* P. Henn. F. Amaz. I, p. 177 (Hedw. 1904). — Cæspitosus; pileo tenuissime membranaceo, sicco subtranslucente fragili, mesopode, infundibuliformi, alutaceo, levi glabroque 0,5-3 cm. diam.; stipite subtereti, equali, levi, glabro, brunneo, 3-6 cm. longo, 0,5-1 1/2 mm. crasso; poris planis subrotundato-polyhedricis, ca. 0,2-0,3 mm. diam., acie integra, pallida; sporis subglobo-bosis, hyalinis, ca. 2 μ .

Hab. ad truncos putrescentes, Rio Juruá, Juruá-Miry Amazoniæ (ULÉ). A typo videtur differre pileo tenuissimo, translucido, non scrobiculato etc.

17. **Polyporus lithophylloides** Har. et Pat. Champ. rec. au Japon in 410

Bull. du Museum d'hist. nat. 1902, n. 2, pag. 129. — *Merisma*. Pileo carnosus, fragili, convexo 15 cm. lato, 6 cm. alto, cavernoso, pileolis numerosis, liberis plus minusve confluentibus, basi fibrillis numerosioribus, cylindricis, ramosis, gracilibus, radicularum instar pendulis terminatis, efformato; pileolis spathulatis, antice curvatis, rotundatis paullulumque lobatis, depressis longeque decurrentibus, postice in partem stipitiformem et fibrilliferam connatis, imbricatis, tenuibus, carnosus, fragilibus, unicoloribus et non zonatis, 8-12 mm. latis, grosse velutinis; fibrillis radiceformibus, 5 cm. circiter longis, apice 2 mm. cr. et filiformi-attenuatis. poris totam inferiorem pileolorum faciem partesque decurrentes usque ad fibrillarum originem occupanti, minimis, rotundatis, dissepimentis tenuibus, integris, superficialibus.

Hab. ad terram, Tokyo Japoniæ. — Habitus *Lithophylli*.

18. **Polyporus helopus** Har. et Pat. Bull. Soc. Mycol. 1904, p. 63 c. 411

icone. — Densè cæspitosus e basi carnosus-sclerotioidea, magnitudine pugni, extus fusco-atra, intus alba, inverse conoidea enatus; pileo carnosus tenui excentrico v. sublaterali, orbiculari, profunde umbilicato, margine incurvo, rufo-brunneo, nonnullis squamis latis adpressis, obscurioribus consperso, 3-4 cm. lat., 2 mm. cr.; stipite cylindrico, inferne attenuato, simplici, 3-5 cm. alto, 5-10 mm. cr., albido, basi fuscidulo, glabriusculo; hymenio albido, partem pilei inferiorem et totam stipitis usque ad basim superficiem obtegenti; poris magnis alveolatis, angulatis, tubulis brevioribus, dissepimentis carnosus, integris.

Hab. in ambulacris viridarii Musei parisiensis. — Species perpulchra cum *P. umbellato* comparanda.

19. **Polyporus conglobatus** (Karst.) Sacc. et D. Sacc. *Polypilus con-* 412
globatus Karst. Fungi novi nov. Loennb. 1904, p. 2, (Finska Vetensk. Soc.). — Imbricatus, ex axi communi oriundus, circiter 12 cm. altus et latus; pileis carnosio-sublentis, convexulis, glabris, alutaceo-pallescentibus; poris primitus rotundis, parvis dein angulatis majusculisve, curtis, albidis.

Hab. in graminosis ad terram juxta vias prope arbores in horto Mustialaënsi Fenniae, Septembri 1903, semel lectus.

20. **Polyporus Sumstinei** (Murr.) Sacc. et D. Sacc. *Grifola Sumstinei* 413
 Murr. Bull. Torr. Bot. Cl. 1904, p. 335. — Pileo imbricato-multicipiti, 30 × 20 cm., pileolis flabelliformi-spathulatis 6-8 × 0,3-0,5 cm., extus radiato-rugosis, minute tomentosis laete vel saturate brunneis, margine tenui, sicco inflexo et fisso; contextu albo-fibroso, carnosio-molli v. subcoriaceo, 0,3 cm. cr.; tubulis 0,2 cm. long., 7 in quoque mm., initio fuligineis, demum pallidis, polygoniis, irregularibus, acie tenuissima, fragili, demum lacerata; sporis globosis levibus, hyalinis, tenui-tunicatis, copiosis, 5 μ . diam.; stipite tuberculiformi, ligneo, infra nigricante, connato-ramoso, sursum pallidiore in pileolos sensim abeunte.

Hab. ad truncos varios, Ohio, Louisiana, Pennsylvania Amer. bor. — Affinis *P. giganteo*.

21. **Polyporus saharanpurensis** P. Henn. Fungi Indiae orient. II, in 414
 Hedw. 1901, p. 325. — Carnoso-spongiosus; pileo excentrico v. lateraliter stipitato, interdum caespitoso-multiplici, superne molli velutino, glabro v. tuberculoso, isabellino, margine subacuto, interdum rufo-corticato, usque ad 8 cm. diam.; stipite brevi subcylindraceo-clavato, 1-2 cm. longo, latoque v. confluyente deformi-compresso, farcto, alutaceo, molli; hymenio concolori, poris lacerato-decurrentibus, rotundato-angulatis, brevibus, planis ca. 3, 5-4 × 3-3,5; carne floccoso-spongiosa, subcaseoso-molli, alutacea, crassa.

Hab. in radicibus arborum, Saharanpur-Garden Indiae orient.

22. **Polyporus Dielsii** P. Henn. in Hedw. 1903, pag. (75). — Pileo 415
 primo carnosio-molli, sessili, subhemisphaerico-convexo, levi, superne isabellino-brunneo, verrucis planis, polyhedricis, pallidis, subfarinaceis tecto, ca. 40 cm. diam.; carne sicca molli spongiosa, pallida, dein flavo-isabellina, ca. 3-5 cm. crassa; tubulis flaccidis, ferrugineis, ca. 3-9 cm. longis; poris subrotundato-angulatis vel laceratis, fusco-ferrugineis, ca. 1-2 mm. diam.; sporis ellipsoideis, flavo-brunneis 7-8 × 4,5-5,5, levibus 1-guttulatis.

Hab. ad terram argillaceam sub Eucalypto occidentali, in Australia occid. (L. DIELS). — Teste cl. auctore, subgenus proprium (*Paniopsis*) format.

23. **Polyporus croceus** (Pers.) Fr. Syst. Myc. I, p. 364. — Syll. VI, p. 117. — *Boletus* Pers. Obs. I, p. 87.

Hab. quoque ad truncos Quercus, in Polonia. — Sporæ hyalinae, guttulis stramineis, obovatæ, 6-7 \approx 4-5; hyphæ tubulorum molles, hyalinae, conglutinatae, 2 $\frac{1}{2}$ -3 $\frac{1}{2}$ μ . latæ. Tubuli subcarnosi, exsiccando nigrescentes. Pulcra species rarissima. (Bresdola Fungi Polonici in Ann. Mycol. 1903, p. 74).

24. **Polyporus cinnamomeo-squamulosus** P. Henn. in Engl. Bot. Jarbh. 416

1901, p. 43. — Syll. XVI, p. 1115 (nomen). — Pileo carnosolento dein subcoriaceo, pleuropode, conchato subreniformi, cinnamomeo, radiato-striatulo, velutino-squamuloso, squamulis obscurioribus evanescentibus, 5-9 cm. lato, 4-5 cm. longo, carne lignicolori; stipite laterali brevi, atro-fusco, 0,3-0,7 mm. longo latoque, basi discoideo; tubulis 1-1,5 mm. longis, decurrentibus; poris minutis atrocastaneis rotundatis, setulis furcatis v. asteroideis vestitis, acie integris; sporis haud conspicuis.

Hab. ad truncos, Kamerun Afr.

25. **Polyporus Niaouli** (Pat.) Sacc. et D. Sacc., *Xanthochros Niaouli* 417

Pat. Champ. des colonies franc., in Bull. du jard. colon., 1901, n. 2, p. 263 — *Xanthochrous*. Pileo sessili, dimidiato, in forma ungulæ equinae, rufo-brunneo, albicante, velutino, 3-4-concentrice et profunde largeque sulcato; margine rotundato, obtuso, indurato; cute suberosa, ferrugineo-brunnea, radiata et zonata; hymenio plano, rufo-brunneo; poris parvulis, angulosis, stratis distinctis, integris; tubulis concoloribus, longioribus in parte mediana; sporis rotundatis, levibus, 5-6 μ . diam., ferrugineis.

Hab. in Melaleuca viridiflora in Nova Caledonia. — Imbricatus, 10-15 cm. latus, 6-8 cm. altus.

26. **Polyporus melanocephalus** (Har. et Pat.) Sacc. et D. Sacc., *Xan-* 418

thochrous melanocephalus Har. et Pat. Champ. rec. au Jap. in Bull. du Mus. d'hist. nat. 1902, n. 2, p. 130. — *Xanthochrous*. Pileo orbiculari, profunde umbilicato, nigro, glabro, levi, non striato 1 $\frac{1}{2}$ cm. lato, tenuiter membranaceo, margine incurvatulo, tenui, hinc inde laceratulo; stipite centrali, 2 cm. longo, ad basim incrassatulo, circ. 3 mm. crasso, longitudinaliter striato-sulcato (forte exsiccationis ope) luteo-ferrugineo, undique furfuraceo; poris fuscescentibus, nudo oculo vix conspicuis, angulosis, superfi-

cialibus, dissepimentis tenuibus integrisque, in stipitis apicem leviter decurrentibus; cystidiis nullis.

Hab. ad terram, Tokyo Japoniæ.

27. **Polyporus Bernieri** (Har. et Pat.) Sacc. et D. Sacc., *Xanthochrous* 419

Bernieri Har. et Pat. Journ. de Bot. 1903, p. 9 — Maximus, vix ponderosus, solitarius vel subimbricatus; pileo sessili, pulvinato, convexo v. applanato, non sulcato, setis strigosis erectis undique vestito, pallide cervino, dein fusco-brunneo, tandem senio atro, margine obtuso crassiusculo, concolori, pag. inf. pallidius concolori; poris aliis in situ horizontali integris, angulatis, grandiusculis, dissepimentis tenuibus, non dentatis, alteris decurrentibus, plus minus laceratis, tubulis cremeis mollibus, pruina flavida conspersis; cystidiis nullis; sporis numerosis, flavidis, ovoideis, levibus, 10×6 , uniguttulatis; contextu pilei molliusculo, cremeo, e fibrillis radiantibus, stuppeis composito.

Hab. ad truncos cariosos, raro, Ile des Pins, Nova Caledonia (BERNIER). — Pileus 8-15 cm. lat., concrescendo usque 25 cm., 3-15 cm. cr. Ab affini *P. hispido* trama crenea præcipue diversus.

28. **Polyporus illicicola** P. Henn. in Engl. Jahrb. 1902, XXXII, 420

p. 39. — Pileo suberoso, dimidiato sessili, postice effuso, interdum subresupinato, ferrugineo, azono, tomentoso-asperato, margine acuto, mox nudo, 3-6 cm. lato, 0,5-1 cm. longo; poris laceratis irregularibus, cinnamomeis, acie cinerescens; sporis ellipsoideis utrinque obtusis interdum ovoideis $13-16 \times 8-10$, episporio brunneo, levi, contentu ferrugineo.

Hab. in ramis emortuis *Illicii religiosi*, Mt Kijosum Japoniæ (S. KUSANO). — Affinis *P. gilvo*.

29. **Polyporus plorans** (Pat.) Sacc. et D. Sacc., *Xanthochrous plorans* 421

Pat. Bull. Soc. Mycol. 1904, p. 52. — Sessilis, dimidiatus, convexus, semiorbicularis, 10-50 cm. lat., margine rotundato-obtusos, nec recurvato, spongioso-mollis, postice ruditer tomentosus, antice glabrescens levis, undulatus v. rugulosus, ferrugineo-rufus, dein uniformiter brunneus, margine plus minus flavus; tubulis 2-3 cm. longis, flavo-citrinis dein ferrugineo-rufis poris mediocribus rotundatis dein oblongis, fimbriato-laceris; trama 5-8 cm. cr., friabili, fibroso-radiante, brunneo-rufescente, non v. vix zonata; sporis ellipsoideis, levibus, $8-10 \times 6-7$, pallide citrinis.

Hab. ad truncos *Populi pyramidalis*, rarius *Salicis* pr. Laghouat Algeriæ (Cap. SEM). — *P. Tamaricis* et *P. hispido* af-

finis, differt præsertim levitate, friabilitate tramæ, sporis pallidioribus etc.

30. **Polyporus Tamaricis** (Pat.) Sacc. et D. Sacc., *Xanthochrous Tamaricis* Pat. Bull. Soc. Mycol. 1904, pag. 51, *Polyporus Rheades* Bres. Trid. II, pag. 30, t. 136, nec Pers. — A. P. *Rheade* Pers. differt dimensionibus majoribus, præcipue crassitie majori, trama molliore laxiore, læte flava et zonis alternatis flavis brunneisque variegata; pileo brevius velutino, tandem glabrato, nunquam sulcato; sporis $8-9 \times 6$ (nec $5-6 \times 4$).

Hab. in truncis Tamaricis in Algeria et Ital. bor. — Affinis potius *P. hispido* quam *P. Rheadi*.

31. **Polyporus Hollandii** Massee in Kew Bull 1901, p. 163. — Pileo unguolato-dimidiato, postice latissime adnato, plus minusve decurrenti, effuso, 5-6 cm. lato, 10-12 cm. longo, superne levi, azono, glaberrimo, læte citrino; hymenio e tubulis albis brevissimis, ore minuto rotundo dense composito; carne crassa, compacto-elastica, alba.

Hab. ad truncos, Old Calabar Africae occident. — *P. betulino* Fr. affinis.

32. **Polyporus castanophilus** Atkinson in Journ. of Mycol. 1902, p. 118. — Pileo dimidiato, sessili, convexo, 10-20 cm. lato, 10-12 cm. longo, zonato, plus minusve rugoso, interdum basi tomentoso, rubro-luteo vel rubro-aurantiaco; carne lutescente, zonata, molli, in sicco dura; tubulis planis, margine fimbriatis luteo-aurantiacis, in sicco luteo- vel rufo-brunneis, 6-8 mm. longis; basidiis clavatis, 4-sporis, $15-20 \times 4-5$; sporis albis, hyalinis, levibus, 3×2 , granulosis.

Hab. in ligno decorticato Castaneæ, Wood, Blowing Rock, N. C. Amer. bor.

33. **Polyporus bambusicola** P. Henn. F. Indiæ or. II, in Hedw. 1901, p. 326. — Carnoso-suberosus, laterali-stipitatus, pileo subflabellato v. subtriquetro interdum clavato, sulphureo, molle subvelutino, ruguloso, margine subacuto v. incrassato, obscuriori, repando, 1-1,5 cm. longo latoque; carne spongiosa ferruginea; stipite compresso irregulari, 0,5-1,5 mm. longo, 5 mm. lato concolori; hymenio ferrugineo; poris decurrentibus, minutis rotundatis v. oblongis, acie integris pallide pruinosis; sporis subglobosis, hyalinis, levibus 4 μ . diam.

Hab. in culmis Bambusacearum, Saharanpur-Garden Indiæ orient.

34. **Polyporus asperulus** Har. et Pat. Journ. de Bot. 1903, p. 7. — 426

Leucosporus, pleurotus, stipitatus; pileo semiorbiculari, conchiformi, rigido carnosso-indurato, castaneo, zonis paucis concentricis obscurioribus notato, superficie tactu rudi, postice sub lente leniter cristato; stipite cylindrico, brevi, asperulo; hymenio albido; poris minutissimis, angulosis, dissepimentis tenuibus; tubulis longiusculis, concoloribus, tenuibus; contextu pilei albo.

Hab. ad truncum Aleuritidis emortuum, Tenda, Nova Caledonia (BERNIER). — Pileus 3-5 cm. lat, 6 mm. cr.; stipes 1 cm. long., 6-8 mm. cr.

35. **Polyporus aquosus** P. Henn. Fung. S. Paul. III, p. 199 (Hedw. 427

1904). — Pileo subcarnoso aquosissimo, lateraliter stipitato, horizontali, subreniformi vel flabellato, isabellino vel pallide coffeaceo, levi, glabro, margine integro vel inciso-sublobato, ca. 12-15 cm. lato, longoque, $1\frac{1}{2}$ -2 cm. crasso, sicco tenui membranaceo v. subpapyraceo ca. $\frac{1}{2}$ -1 mm. crasso; stipite tereti levi, glabro, concolori ca. 4 cm. longo, $1\frac{1}{2}$ -2 cm. crasso, contextu pallido; hymenio interrupte poroso, pallido; poris planis, rotundato-angulatis, dein laceratis flaccidis, ca. $\frac{1}{2}$ -1 mm. diam.; sporis oblongis v. ellipsoideis, obtusis, levibus, hyalino, subflavidulis, 7-10 \times 4-5.

Hab. ad truncos emortuos, Serra de Contareira S. Paulo Brasilie (ULÉ). — Videtur affinis *P. hydrophilo* et *P. rigescenti*.

36. **Polyporus Leprieurii** Mont. Cent. II, n. 13, t. 6, f. 1. — Syll. 428

VI, p. 87. — var. *juruanus* P. Henn. F. Amaz. I, p. 176 (Hedw. 1904). — Pileo membranaceo-coriaceo infundibuliformi vel subflabellato; margine inciso-crenato vel lobato, gilvo, subtiliter radiato striato, levi glabroque, $1\frac{1}{2}$ -4 cm. diam.; stipite subcentrali vel excentrico, atro-ferrugineo pruinoso, 1-3 cm. longo, 1-1 $\frac{1}{2}$ mm. crasso; poris decurrentibus, planis, rotundato v. oblonge polyhedricis, isabellinis, acie integris, rigidis, usque ad 1 mm. diam.

Hab. in truncis putridis, Rio Juruá, Born Fim. Juruá-Miry Amazoniæ (ULÉ). — Etsi facies valde aliena, tamen ad typum polymorphum videtur spectare.

37. **Polyporus fusco-maculatus** Bres. et Pat. in Lloyd Myc. Not. n. 6, 429

pag. 49. — Pileo papyraceo-membranaceo, in sicco flabelliformi, alutaceo-brunneo, squamis saturatioribus adpressis variegato, 7-8 cm. lato, 4-6 cm. antice producto; stipite laterali suberoso-molli, alutaceo, 1,5-3 cm. longo, 1-1,5 cm. cr. basi haud nigro; tubulis brevibus, vix 1 mm.; poris amplis angulatis, acie demum fimbriatis, sæpius 1 mm. lat.; sporis oblongis, 8-10 \times 3-4, hyalinis.

Hab. ad truncos in insula Samoa. — Species habitu *Polyporo squamoso* admodum similis, sed substantia papyraceo-membranacea (saltem in sicco) pilei et spongioso-molli stipitis basi non nigri certe distinguenda.

38. **Polyporus squamosus** Huds. — Syll. VI, pag. 79. — var. **lenticoides** P. Henn. Fung. S. Paul. III, p. 199 (Hedw. 1904). — Pileo carnosolento, mesopode convexo, centro infundibuliformi depresso, albido flavescenti, fusco-squamosulo subglabroque, ca. 8 cm. diam., 1-1½ cm. crasso, contextu albido ca. ½-1 cm. crasso; stipite centrali subcylindraceo, pallide isabellino, firmo, duro, facto, levi glabroque, basi incrassato, curvato, nigricante, radicato, ca. 7 cm. longo, 1½-2 cm. crasso; tubulis decurrentibus, albidis, medio ca. 6 mm. longis; poris rotundato- vel oblongo-angulatis, 1-2 mm. diam. sublaceratis, acie crenulatis, pallidis; sporis fusoidis vel subclavatis utrinque obtusis, 1-2-guttulatis, hyalinis, levibus, 12-14 × 5-6.

Hab. ad terram (?), St. Paulo Brasiliæ (PUIGGARI). — A forma *mesopoda* *P. squamosi* habitu et consistentia sat diversus, sporis tamen convenit et ut var. *tropicalis* habenda.

39. **Polyporus podlachicus** Bres. Fung. polonici in Syd. Ann. Mycol. 1903, vol. I, pag. 73. — Pileo carnosolento, demum indurato, glabro, levi vel postice subnaucoso, tenui, reniformi, avellaneo 0,5-1 cm. lato, 0,5 cm. circiter antice producto; stipite laterali, rudimentali tantum, basi scutato-dilatato; tubulis albis 0,5 mm. latis; poris medioeribus 300-500 µ. latis, subrotundis v. angulatis, acie puberula, ex albo stramineis; substantia carnosolenta, demum indurata, alba; sporis hyalinis, oblongis 7-9 × 3-3,5.

Hab. ad ramos Populi tremulæ, in Polonia rossica. — *Polyporo elongato* affinis, a quo statura multo minore, stipite tantum rudimentali et poris majoribus satis videtur distincta; transit ad *Favolos*.

40. **Polyporus labiatus** (Pat.) Sacc. et D. Sacc., *Leucoporus labiatus* Pat. in Duss. Enum. Champ. Guadel. 1903, p. 25. — Pileo pendulo v. laterali, conico, basi punctiformi affixo, regulariter infundibuliformi, dein in laminam tenuem supra productiorem et fere bilabiata expanso, longitrorsum plicato-striato, glabrescente, obscure zonato, griseo-nigricante, antice fulvo, margine integro v. inciso, tenui; hymenio concavo, rufescente tubulis brevissimis; poris exiguis quasi reticulatis, ad marginem nullis.

Hab. ad lignum Simarubæ amaræ, Trois-Rivières, Guada-

lupa. *P. evoluto* proximus, 2-4 cm. long., 1 mm. cr., exsiccatione valde contractus.

41. *Polyporus cæsius* (Schrad.) Fr. Syst. Myc. I, p. 360. — Syll. VI, p. 113 — *Boletus* Schrad. Spic. p. 167.

Hab. quoque ad ramos Pini, Quercus, in Polonia. — Species hæc quoad formam et magnitudinem pororum variabilis; interdum etiam resupinato-reflexa vel ex integro resupinata. Vidi quoque pileo atro-cæruleo. *Polyporus cæruleus* Schum., specie omnibus auctoribus ignota meo sensu huc quoque ducendus. Nota alata substantiæ ochraceæ vix attendenda (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 73).

42. *Polyporus albidus* (Schaeff.) Trog in Flora, Fr. Epier. pag. 475, *Boletus* Schaeff. Icon. Bav. tab. 124, *Polystictus albidus* (Schaeff.). — Syll. VI, p. 239.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Fungus prorsus variæ figuræ, sessilis vel stipitatus vel etiam resupinatus, generatim in junioribus fragilis, friabilis, demum induratus. Sporæ hyalinae, oblongæ, $4\frac{1}{2}$ - $5 \approx 2\frac{1}{2}$ - $2\frac{3}{4}$; hyphæ contextus tubulorum 3-4 μ . latæ, crasse tunicatæ; sapor amariusculus. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 74).

43. *Polyporus sulphureo-pulverulentus* (Karst.) Sacc. et D. Sacc. *Ino-* 433
notus sulphureo-pulverulentus Karst. Fungi nov. Loennb. 1904, p. 8 (Finska Vetensk. Soc.). — Pileo suberoso, dimidiato, fulvo-ferrugineo præcipue marginem obtusum versus sulphureo-pulverulento, strato interno superiore ferrugineo fulvo, inferiore sulphureo, 3-5 cm. lato; poris brevibus (circiter 1 mm.), minutis, difformibus lacerisque, primitus cinerescentibus, sulphureo irroratis.

Hab. in territorio Baicalensi, Listvinitchnoje Sibiria, Aug. 1902 (O. A. F. LÖNNBOHM).

44. *Polyporus nauseosus* (Pat.) Sacc. et D. Sacc. *Leptoporus nauseo-* 434
sus Pat. in Duss. Enum. Champ. Guadel. 1903, p. 27. — Pileo convexo-dimidiato, antice decurrenti et plus minus imbricato, 6 cm. lat., viscoso, glabro flavo-cinereo, odore nauseabundo; trama carnosio-fibrosa, alba; tubis tenuissimis, albis, mollibus; poris minutis, dentatis, sepimentis tenuibus.

Hab. in truncis Coffeæ, Camp Jacob Guadalupa (Duss). — Species *P. tephroleuco* analoga.

45. *Polyporus minusculus* Boud. in Bull. Soc. Myc. de France 1902, 435
p. 141, tab. 6, fig. 3. — *Leptoporus*; pileo pallido dein ferruginascente, uno latere adfixo, minuto, 1-3 mm. lato, tuberculiformi

sed tenui, absolute immarginato, glabro, ex albo-ochraceo aut ferrugineo; carne vix ulla, subtus tubulis perpauca (5-20 numero) pro ratione longissimis, 4-5 mm., sat amplis, vix dentatis, albis, pendulis non ligno adnatis; basidiis brevibus tetrasporis, 12-15 × 6-7, clavatis, intus spumosis; sporis rotundatis, 1-guttulatis, hilo conspicuo, 4-6 μ . diam., hyalinis.

Hab. in ligno abietino, Domont prope Montmorency Galliae (D. LOUVER).

46. **Polyporus duracinus** (Pat.) Sacc. et D. Sacc., *Leptoporus duraci-* 436
nus Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France, T. XVIII, fasc. II, 1902. — Pileo convexo, rigido, duro, semiorbiculari 15-25 mm. lat., 8-15 mm. long., albo-rufescente, antice saturatiore, glabro, 1-2 sulcis concentricis, profundis exarato vel zonis angustis rufis parcis notato, postice basi lata membranacea affixo, deorsum decurrente, margine recto, obtuso, integro v. in lobos binos, ternos, rotundos diviso; poris albidis, rotundatis, ad marginem punctiformibus; sepimentis crassis, obtusis, integris, pruinosis; trama albida, dura 1-2 mm. crassa; tubis concoloribus 1-1,5 mm. longis; cystidiis nullis; sporis cylindraceis rectis curvulisve, hyalinis, 4 × 1.

Hab. in ramis putridis Cecropiæ peltatæ, in Guadalupa (Duss). — *Pol. evoluto*, *Pol. stereino* et *Pol. versicuti* affinis sed sepimentis crassis, obtusis, diversus.

47. **Polyporus cachoeirasensis** P. Henn. F. Amaz. I, p. 177 (Hedw. 437
 1904). — Pileo carnososo-subcoriaceo, flabellato erecto, cinnamomeo, nitido, radiatim striatulo, interdum subrugoso, 2-2½ cm. lato, 1 cm. longo, margine tenui; stipite gracili lignescente, tereti, laterali, ferrugineo-velutino, basi flexuoso, ca. 12-15 cm. longo, 1½-2 mm. crasso; poris rotundato-hexagonis ca. 1-1½ mm. amplis, acie flaccida, integra; sporis subglobosis, alutaceis, castaneis, dense granulato-vel tuberculato-verrucosis, 10-15 μ . diam.

Hab. ad terram silvaticam Cachoeiras ad Marmellos Amazoniæ (ULE). — Stipite longo, flexuoso sporisque tuberculato-verrucosis distincta species.

48. **Polyporus ufensis** (Karst.) Sacc. et D. Sacc., *Inonotus ufensis* 438
 Karst. Fung. nov. Loennb. 1904, p. 3 (Finska Vetensk. Soc.). — Pileo suberoso, conrescente, sat tenui, scrupuloso, colliculoso, umbrinò-fusco, margine obtusiusculo, pallidiore, 3-4 cm. lato; poris parvis, forma variis, irregularibus, mox laceris, concoloribus albo-irroratis.

Hab. prope oppidum Rossia, Ufa (leg. O. H. F. LÖNNBOHM et J. G. OKSAHEN). — *Lenzitem* in memoriam revocat.

49. **Polyporus nigrellus** (Pat.) Sacc. et D. Sacc., *Leptoporus nigrellus* 439

Pat. in Duss Enum. Champ. Guadel. 1903, p. 28. — Omnino resupinatus, late effusus, carnosomembranaceus, separabilis, margine sterili vix distincto, albido, non fimbriato, adpresso; trama alba; hymenio cinereo-nigricanti, violascente tineto; poris minutis, rotundis, distantibus, sepimentis integerrimis; tubulis curtis.

Hab. ad truncum putrem Sterculiæ caribææ, Basse-Terre Guadalupe. — A *P.* (Poria) *rivuloso* colore præsertim diversus. An ergo potius gen. *Porice* adscribendus?

FOMES Fr. — Syll. VI p. 150, IX p. 173, XI p. 88, XIV p. 180, XVI pag. 151.

1. **Fomes albogriseus** Peck in Bull. Torr. Bot. Cl. 1903, p. 97. — 440

Pileo elongato, ungulato, extus lignoso, concentrice sulcato, azono, parte crusta juniore isabellina v. pallide grisea, pruinulosa, parte vetusta inaequali, rimosa et griseo-nigricanti, substantia intus mol-luscula, friabili, albida; poris minutis, obscure stratosi, intus albis, ore pallido v. isabellino.

Hab. ad truncos Pini contortæ et P. Strobi Kent county, Michigan Amer. bor. (B. O. LONGYEAR). — Pileus 7-35 cm. long., 10-25 cm. lat., 5-15 cm. cr. — *F. fomentario* et *F. juniperino* affinis.

2. **Fomes versicolor** P. Henn. in Hedw. 1903, p. (75). — Pileo sub- 441

ungulato, obsolete sulcato-zonato, rufo-brunneo, basi nigricante rimoso, crustaceo, subnitenti, ca. 8 cm. longo, 5 cm. lato, contextu cinnamomeo, lignoso; hymenio convexo, poris rotundato-angulatis, ca. 0.3 mm. diam., aureis dein ferrugineis; sporis late ellipsoideis, flavo-brunneis, levibus, 4-4.5 × 3.5-4.

Hab. in truncis viventibus, ad flum. Russel, N. Queensland Australiæ (PRITZEL).

3. **Fomes yucatensis** (Murrill) Sacc. et D. Sacc., *Pyropolyporus yuca-* 442

tensis Murr. Bull. Torr. Bot. Cl. 1903, p. 119. — Pileo lignoso, dimidiato applanato, posterius incrassato, 7-9 × 9-12 × 2-3 cm., extus primitus tomento fulvo vestito, demum atro-brunneo v. nigro et uniformiter tuberculoso et in areas minutas sulcis numerosis concentricis radialibusque diffracto, margine angusto, acuto, velutino, fulvo, contextu duro, fulvo, 0.5 cm. cr.; tubulis obsolete stratosi, in quoque stratu, 0.25 cm. long., in quoque mm. 7, fulvis, poris

circularibus, punctatis, acie crassa obtusa; sporis globosis v. subglobosis, levibus, pallide flavido-brunneis, 3,5-5 μ . diam.; hyphis ferrugineis; cystidiis 17-35 μ . long., acutis, basi incrassatis.

Hab. ad truncos in Yucatan (MILLSPAUGH) et Nicaragua (L. SMITH).

4. **Fomes Underwoodii** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Underwoodii* Murr., Torr. Bot. Cl. 1903, p. 116. — Pileo lignoso, late unguato, basi tenuata adnato, infra concavo, 7-14 \approx 11 cm., extus pluries concentrice sulcato, rimoso, uniformiter ex atro-brunneo, nigro; margine fulvo, acuto v. obtusulo, velutino, undulato, zonis angustis notato; contextu duro e fulvo atro-brunneo, parcissimo, vix 0,5 cm.; tubulis distincte stratosi, in quoque stratu, 0,5-1,5 cm. long., in quoque mm. 3, intus brunneis, acie circularibus v. polygoniis, acutis, integris, saturatioribus; sporis ellipsoideis, levibus, tenui-tunicatis, late flavido-brunneis, 9 \approx 7; cystidiis nullis.

Hab. ad truncos prope Coamo Springs Porto rico (UNDERWOOD et GRIGGS). — Habitus *F. Robiniae* sed tubulis, colore, sporis diversus.

5. **Fomes Robiniae** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Robiniae* Murr., in Bull. Torr. Bot. Cl. 1903, pag. 114. — Pileo lignoso duro, dimidiato unguato v. subapplanato, 5-25 \approx 5-50 \approx 2-12 cm., extus velutino, levi, mox valde rimoso-rugoso, e fulvo purpureo-nigro, denique sordide nigro, profunde et late concentrice sulcato, margine rotundato velutino fulvo; contextu lignoso duro, concentrice zonato, 1-3 cm. cr. fulvo; tubulis stratosi, 0,15-0,5 cm. long., in quoque mm. 5, fulvis, poris subcircularibus, dissepimentis integris, pori diam. æquantibus; sporis subglobosis, levibus, tenui-tunicatis, ferrugineis, copiosis, 4-5 μ . cr.; cystidiis nullis.

Hab. in truncis Robiniae in Amer. bor. pluribus locis, nec non in Gallia merid. (FAUTREY in herb. Upsal.). — Distinguitur statura ampla, superficie rimosa, hymenio fulvo etc.

6. **Fomes prærimosus** (Murrill) Sacc. et D. Sacc., *Pyropolyporus prærimosus* Murr. Bull. Torr. Bot. Cl. 1903, p. 115. — Pileo lignoso, rotundato-angulato, 8-12 \approx 7-10 \approx 8-11 cm., extus rimosissimo (post primum annum), late sulcato, protuberantiis tandem fissis, ex atro-brunneo nigro, margine obtuso, velutino, ferrugineo-canescente; contextu suberoso-lignoso, concentrice zonato, fulvo, 0,5 cm. cr.; tubulis indistincte stratosi, 1-2 cm. long. in quoque stratu, 3 in quoque mm., concoloribus cum contextu, poris retundato-polygo-

niis, primitus ochraceis, acie crassiuscula obtusa, demum tenui et sæpe fissa; sporis globosis, levibus, obscure ferrugineis, 3-4 μ . diam.; spinulis (cystidiis?) ferrugineis, 10-17 \approx 5-10, basi crassioribus.

Hab. ad truncos *Quercus undulatae* in Mont El Capitan, New Mexico, 2200 metr. — Species *F. Everhartii* affinis, pileo amplo unguato, hymenio plano brunneo et cortice rimosissimo dignoscenda.

7. *Fomes Langloisii* (Murrill) Sacc. et D. Sacc., *Pyropolyporus Langloisii* Murr. Bull. Torr. Bot. Cl. 1903, p. 118. — Pileo suberoso, flabellato, basi angusta adnato, sæpe posterius depresso, 8-13 \approx 10-25 \approx 0,3-1,5 cm., extus primitus anodermeo, molli, tomento brunneo vestito, pluries concentrice sulcato, tandem glabro, rugoso, indurato, nigro, sulcis numerosis levibus notato; margine velutino, brunneo, tenui, acuto, undulato v. sublobato; contextu suberoso-molli, sensim indurato, atro-brunneo, 0,2-0,5 cm. cr.; tubis reviviscentibus, distincte stratosi, 0,2-0,5 cm. long. in quoque stratu, 8-9 in quoque mm. brunneis, poris polygoniis, concoloribus, acie maturitate tenui; sporis globosis, levibus, hyalinis, 3 μ . diam.; cystidiis nullis,

Hab. ad truncos emortuos v. morientes *Crataegi*? (*hawthorn*) in Louisiana frequens (LANGLOIS). — Fungus late expansus, hymenio brunneo, superne brunneus v. nigricans. *F. Ribis* affinis.

8. *Fomes jamaicensis* (Murrill) Sacc. et D. Sacc., *Pyropolyporus jamaicensis* Murr. Bull. Torr. Bot. Cl. 1903, pag. 120. — Pileo lignoso, applanato, posterius incrassato, 8-13 \approx 0,5-5, extus inæquali, radiatim rimoso, ex atro-brunneo nigro, margine ferrugineo, velutino, acuto, demum nigro, expanso-lobato; contextu lignoso, fulvo, 0,5-1 cm. cr.; tubulis stratosi, stratu tenui annuo contextus separatus, 0,2-0,7 cm. long., in quoque mm. 7, intus fulvis, poris rotundis vel polygoniis, primitus canescentibus, acie tenui, acuta integra; sporis globosis vel subglobosis, tenui-tunicatis, levibus, pallide aureo-flavis (senio probabil. saturatoribus), 5-7 μ . diam.

Hab. ad truncum vetustum *Psidii*, Port Antonio Jamaica (EABLE). — Species sat minuta, flabelliformis, stratosi.

9. *Fomes Hæmatoxyli* (Murrill) Sacc. et D. Sacc., *Pyropolyporus Hæmatoxyli* Murr. Bull. Torr. Bot. Cl. 1903, pag. 117. — Pileo lignoso, dimidiato, sessili, posterius incrassato, 12-14 \approx 4 cm., extus glabro, atro-brunneo, profundiuscule concentrice sulcato, lineis numerosis concentricis saturatoribus notato; margine fulvo, tenui,

rotundato, subundulato; contextu suberoso-lignoso, indistincte concentricè zonato, melleo-flavido, 1 cm. cr.; tubulis distincte stratosi, posterius longioribus, 0,5-1 cm. long. (in quoque strato), in quoque mm. 6, sordide brunneis; poris polygoniis concoloribus, acie obtusa dein attenuata; sporis globosis, rarius ovoideis, tenuitunicatis, levibus, hyalinis, 3,5-5 μ . diam.; hyphis ferrugineis; cystidiis nullis.

Hab. in truncis *Hæmatoxyli*, Paradise Jamaicae (EARLE). —

Species levis, applanata, ampla, tubulis brunneis, contextu melleo.

10. **Fomes Earlei** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Earlei* 449
Murr., Bull. Torr. Bot. Cl. 1903, p. 116. — Pileo lignoso, basi lata adnato, subtus plano, 6-13 \times 17 cm., extus concentricè sulcato, admodum rimoso in partibus vetustis, e fulvo brunneo-nigricante, demum ob intemperies griseo-nigro; margine lato obtuso, atro, flavido-aurantio, tomento denso concolore brevi vestito; contextu lignoso, atro rufo-aurantio, concentricè lineis saturatioribus zonato, sub tubulis rimoso; tubulis inæqualiter stratosi, 0,5-0,75 cm. long. (in quoque strato), in quoque mm. 1-2, primitus intus ochraceis dein latericiis, poris circularibus, ochraceis, acie obtusa, tenui; sporis ellipsoideis, levibus, tenui-tunicatis, ferrugineis, 9 \times 7-8.

Hab. in trunco stante *Juniperi* in montanis New Mexico (EARLE). — Affinis *F. juniperino*, sed multo rimosior, pori ampliores etc.

11. **Fomes crustosus** (Murrill) Sacc. et D. Sacc., *Pyropolyporus crustatus* Murr., Bull. Torr. Bot. Cl. 1903, p. 113. — Pileo lignoso, supra convexo, infra plano, subinde compresso, unguolato, 7-12 \times 5 cm., extus glabro, corneo-incrustato, atro-brunneo, concentricè sulcato, flavido-brunneo, sterili; contextu duro, concentricè zonato, ferrugineo, 2 cm. cr.; tubulis indistincte stratosi, quotannis 0,5-1 cm. long., in quoque mm. 5-6, intus avellaneis, poris polygoniis, concoloribus, acie tenui, acuta, integra; sporis globoso-ovoides, levibus, tenui-tunicatis, hyalinis, 4 \times 3,5-4, hyphis obscuris; cystidiis nullis.

Hab. ad truncos stantes, 1300 m alt. Rose Hill Jamaica (EARLE).

— Distinctus forma unguolata, tubulis brunneis, contextu ferrugineo, crusta atro-brunnea.

12. **Fomes Calkinsii** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Calkinsii* 451
Murr., Bull. Torr. Bot. Cl. 1903, pag. 113. — Pileo durissimo, lignoso, unguolato, 10 \times 10 \times 10 cm., extus glabro, atrobrunneo-nigro, sulcis profundiusculis, concentricis exarato; crusta tenui,

cornea, numquam rimosa; margine rotundato, concolore cum hymenio; contextu lignoso duro fulvo, 1 cm. cr.; tubulis obsolete pluristratis, minutis, angustis, in quoque mm. 7, fulvis, poris subcircularibus, obtusis, integris; sporis ovoideis, hyalinis, tunica crassa levi, pallide ferruginea, $5-7 \times 3-5$; hyphis ferrugineis; cystidiis nullis.

Hab. ad truncos vivos *Quercus virentis*? (*Live-oak*) in Florida Amer. bor. (W. W. CALKINS). — Latus, ungulatus, durus, sulcatus, intus fulvus.

13. **Fomes rubritinctus** Murr. in Bull. Torr. Bot. Club. 1903, p. 232. 452

— Pileo suberoso-lignoso, dimidiato, convexo, $4-12 \times 5-15 \times 3-10$ cm., demum atro-brunneo et ruguloso, margine obtuso, sterili, concolori; contextu suberoso, demum lignoso, pallido, 1,5 cm. cr.; tubulis inæqualiter stratis, stratis contextus cum stratis tubulorum alternantibus, 0,5-1 cm. long., 2 in quoque mm., intus isabellinis, demum umbrinis, poris subcircularibus v. polygoniis, acie tenui isabellina, trita atro-rubra; sporis ovoideis vel subglobosis, $5-7 \mu$ long., levibus, hyalinis, membrana modice crassa; hyphis hyalinis.

Hab. ad truncos, Nicaragua, Amer. centr. (C. L. SMITH). — Fungus magnus, stratosus, poris latis, isabellinis, tritis atro-rubris dignoscendus.

14. **Fomes Cajanderi** Karst. Fung. nov. Loennb. 1904, p. 8 (Finske 453

Vetensk. soc.). — Pileo sessili, dimidiato, intus floccoso, fomentario, ferrugineo, circ. 15 cm. lato, 1 cm. crasso; poris minimis, rotundis, nudis, haud stratis, rubiginoso-ferrugineis.

Hab. ad laricem dahuricam in insula fluvii Sibiriae orientalis Lena, Agrafena m. Aug. 1901 (A. K. CAJANDER).

15. **Fomes annosus** Fr. Syst. Myc. I, p. 375, Icon. sel. tab. 186, f. 2

— Syll. VI, p. 197, *Polyporus cryptarum* (Bull.) Fr. Syst. Myc. I, p. 376, *Polyporus Gillotii* Roum. in Rev. Mycol. Oct. 1882, Fungi Gall. exsicc. n. 2207!

Hab. ad truncos *Pini silvestris*, in Polonia. — Sporæ hyalinae, subglobosæ vel ellipsoideæ, $5-6 \times 4-4\frac{1}{2}$. Species hæc præcipue in fodinis ad ligna fabrefacta coniferarum sub omnibus formis frequentissima obvia; in silvis vero magis communis forma resupinata (= *Polyporus makraolus* Rostk.). (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 75).

16. **Fomes musashiensis** P. Henn. F. japonici IV, in Bot. Jahrbü- 454
cher vol. XXXVI, 1902, p. 737. — Pileo suberoso-lignoso, duro,

firmiter, pleuropodo v. per pluries confluyente, concentrice zonato v. sulcato, ruguloso, cinnamomeo, breviter tomentosus, 3-8 cm. diam., margine subacuto, subintegro; stipite pleuropodo brevi vel usque ad 2 cm. elongato, ca. 1-1,5 cm. crasso, basi incrassato, cinnamomeo tomentosulo; contextu suberoso, fulvo; hymenio concolori, poris decurrentibus, minute punctiformibus, rotundatis, acie integris; sporis subglobosis 3,5-4 μ . diam., hyalino-flavidulis, levibus.

Hab. ad truncos, Musashi Japoniæ.

17. **Fomes bomfimensis** P. Henn. F. Amaz. I, p. 175. — Pileo co- 455
riaceo-lignoso rigido, spathulato v. flabellato, flavo-brunneo v. alutaceo, concentrice versicolori zonato, radiatim substriatulo, margine tenue integro, 2-3 cm. lato, 2½-3½ cm. longo; stipite laterali compresso, lignoso, duro, alutaceo pruinoso, 1-4 cm. longo, 2-4 mm. crasso; contextu sublignoso pallido; poris rotundato-angulatis, minutis, flavidis vel subferrugineis; sporis subglobosis, hyalinis, intus granulatis, 3-3½ μ .

Hab. ad lignum putre, Rio Juruá, Bom Fim Amazoniæ (ULB).
— Substantia lignea dura ad *Fomitum*, ceteris notis vero ad *Polystictum* nutat.

18. **Fomes cremeo-tomentosus** P. Henn. F. Amaz. I, p. 175 (Hedw. 456
1904). — Stipite elongato subcylindraco, sulcato, basi radicato, lignoso, duro, pallido, ca. 10 cm. longo, 1-1½ cm. crasso, apice ramoso, velutino, pileis (3-4) subflabellatis, sublignosis, rigidis, duris, involutis, superne molle velutinis, obsolete zonatis v. azonis, pallidis v. isabellinis, 3-5 cm. latis, 3-4 cm. longis, carne tenui pallida; tubulis ca. 1 mm. longis alutaceis, sporis minutissimis, punctiformibus, rotundatis, pallidis; sporis subglobosis, hyalino-flavidulis, 3-4 μ . diam.

Hab. ad lignum putre, Rio Juruá, Bom Fim Amazoniæ (ULB).

19. **Fomes paulensis** P. Henn. F. St. Paulens III, pag. 202 (Hedw. 457
1904). — Pileo sublignoso, duro, rigido, mesopode, convexo, centro infundibuliformi, subcinereo-cinnamomeo, ferrugineo tomentosulo, concentrice obscuriori zonato, radiatim rugoso, margine tenui, sicco involuto, 13-15 cm. diam., medio ca. 1 cm. crasso, contextu albedo; stipite centrali, lignoso, inæquali subtereti, postice sulcato, atrocinnamomeo-corticato, ferrugineo-tomentosulo, ca. 4 cm. longo, 1-1½ cm. crasso; tubulis sinuoso-adnatis, medio ca. 5 mm. longis, isabellinis, poris minutissimis vix conspicuis, rotundato-angulatis, pallidis dein alutaceis; sporis subglobosis vel ovoideis, hyalinis v. subflavescentibus, 6-7 μ . diam.

Hab. ad truncos (?) St. Paulo Brasiliæ (PUIGGARI). — *F. angusto* proximus videtur, sed consistentia lignea coriaceo-spongiosa recedit.

20. **Fomes stipitatus** Murr. in Bull. Torr. Bot. Club 1903, p. 229. 458

Pileo stipitato, omnino corneo indurato, deplanato subtriangulari v. juniore suborbiculari, demum dimidiato, centro unguato, margine tenui expanso, lobato vel fisso; hymenio vulgo plano, sed sæpe etiam convexo, 5-10 × 3 cm., superficie glabra, vernicea, rubenti-castanea, sulcis numerosis leviter exarata dein nitida nigra, demum opace fumoso-brunnea, margine lato, plano, glabro, obtuso, 3 mm. cr., parte sterili, 0,5 cm. lata, alba; contextu duro, ligneo, 0,5-1 cm. cr., pallide ochraceo, interposita substantia cornea nitida a stipite ad marginem dendritice disposita; tubulis molliusculis, inæqualiter stratosi, 2-4 mm. long., 4-5 in quoque mm., intus griseo-brunneis, poris circularibus albis v. pallidis, rimis læte flavis, sepimentis crassis, obtusis, integris; sporis late ovoideis, basi tenuatis, læte flavido-brunneis, levibus, 5 × 3,5; stipite laterali, 1 cm. cr. et alt., cylindræo, æquali, glabro, nitide brunneo-nigro, intus cum pilei substantia concolori.

Hab. ad truncos in Nicaragua Amer. centr. (C. L. SMITH et B. SHIMEK). — Nonnullis notis typo *Ganodermatis* accedit.

Subgen. GANODERMA (Karst.)

21. **Fomes zonatus** (Murrill) Sacc. et D. Sacc., *Ganoderma zonatum* 459

Murr. in Bull. Torr. Bot. Club 1902, p. 606. — Pileo subereo-molli, sessili, dimidiato, supra applanato v. convexo, infra concavo, glabro, zonato, non sulcato, 7 × 5 × 1,5, margine velutino, acuto dein obtuso et concolori; contextu molli, floccoso, radiato-fibroso, concentricè zonato, 0,5 cm. long., theobromino-brunneo; hymenio velutino, non stratoso, tubulis 1 cm. long., 3-4 in quoque mm., intus umbrinis; poris ex albo umbrinis, regularibus, polygoniis, materie albida initio obturatis, zona marginali, 0,5-2 cm. lata, vernice flavida v. rubida tectis; dissepimentis integris, obtusis v. acutis; sporis elongato-ellipsoideis, levibus, pallide flavido-brunneis, 8-10 × 4-6.

Hab. ad truncos in Florida Amer. bor. (UNDERWOOD). — Affinis *F. sulcato* et, teste cl. Bresadola in litt., forte non satis diversus a *F. resinaceo* Boud.

22. **Fomes sessilis** (Murrill) Sacc. et D. Sacc., *Ganoderma sessile* 460

Murr. in Bull. Torr. Bot. Club 1902, XXX, pag. 604. — Pileo

suberoso-lignoso, dimidiato, sessili, imbricato v. connato, conchato, postice crassiore, margine tenuato, $5-15 \times 7-25 \times 1-3$ cm., e flavido rubro-castaneo, denique opace atro-brunneo, superficie glabro, laccato, lucido, radiato rugoso, concentrice sulcato prope marginem zonis alternis plerumque badiis fulvisque notato, margine tenuissimo, acuto, deorsum vulgo curvato, sæpe undulato, numquam truncato albo, demum concolori; contextu subereo-molli v. ligneo, radiatim fibroso, concentrice zonato, ochraceo-fulvo; tubulis $0,5-2$ cm. long. $3-5$ in quoque mm., intus brunneis, ore circulari v. anguloso, ex albo griseo-brunneolo, acie tenui integra; sporis ovoideis, obtusis, basi tenuato-truncatis, verrucosis, flavido-brunneis, $9-11 \times 6-8$.

Hab. in truncis arborum frondosarum in Amer. bor. pluribus locis. — Affinis *F. lucido*, immo verisimiliter, forte ejusdem forma quædam sessilis.

23. **Fomes parvulus** (Murrill) Sacc. et D. Sacc., *Ganoderma parvulum* 461
Murr. in Bull. Torr. Bot. Cl. 1902, XXX, p. 606. — Pileo lignoso, ambitu subcirculari, puncto adfixo, supra convexo, infra plano vel convexo, postice crassiore, $2-2,5 \times 1$, superficie glabro, laccato, azono, leviter tuberculato, sulcis concentricis levissimis notato, margine acuto, contextu lignoso-molli, pallide ochraceo, $0,5$ cm. cr., lineis subcorneis radiantibus a puncto insertionis; tubulis non stratosi, 3 mm. long., 5 in quoque mm., intus umbrinis, ore polygonio, melleo-flavo, dissepimentis integris, obtusis; sporis subglobosis, levibus, pallide flavido-brunneis, 5×4 .

Hab. ad truncos in Nicaragua (C. L. SMITH). — Fungus minutus sessilis, supra nitidus, badius, infra melleo-flavus.

24. **Fomes Tsugæ** (Murrill) Sacc. et D. Sacc., *Ganoderma Tsugæ* 462
Murrill in Bull. Torr. Bot. Cl. 1902, XXX, pag. 601. — Pileo stipitato, suberoso-ligneo, flabellato, supra convexo, infra concavo, $4-20 \times 5 \times 1-4$ cm., superficie glabro, inæquali, concentrice sulcato, laccato, e flavido-rubro atro-rubro vel nigricante, margine læte flavo, acuto, demum concolori, truncato, sulcis levibus notato, sæpe undulato et plus minus lobato, contextu molli-suberoso, radiato-fibroso, albo v. albido, $1-3$ cm. cr., tubulis annuis, $0,5-0,7$ cm. long., $4-6$ in quoque mm., intus brunneis, poris circularibus v. polygoniis, ex albo pallide cinnamomeis, acie obtusa dein acuta; sporis ovoideis, apice obtusis, basi tenuato-truncatis, verrucosis, flavido-brunneis, $9-11 \times 6-8$; stipite laterali, ascendente, frequenter furcato, cylindraceo, æquali, $2-20 \times 1-4$ cm., colore, superficie et contextu pileo similibus.

Hab. ad truncos *Tsugæ canadensis* in Amer. bor. pluribus locis. — Affinis *F. lucido* sed annuus, pinicola, pallidior etc. Forte non satis diversus a *F. valesiaco* Boud.

25. **Fomes Lionnetii** (Roll.) Sacc. et D. Sacc., *Ganoderma Lionnetii* 463

Rolland Bull. soc. myc. de France 1901, p. 180, t. VIII et Syll. XVI, p. 1115 (nomen). — Pileo applanato, haud crasso, spadiceo-umbrino, ut valva orbiculato, superficiem crustaceam, tenuem, fragilem, rugis profundis, radiantibus, plus minus longis, capillationis ad instar percursam et sulcis manifeste zonatam præbente, ad limbum acuto; hymenio margine sterili pallescente cincto et tubulis tenuibus, longis, brunneis, in senectute stratosi præditi; poris polygoniis, denticulatis, minutissimis, dilutioribus, primum albo-farctis; sporis ovatis, ad basim hyalino-truncatis, levibus, $8 \approx 5$, centro fulvis, ad circuitum brunneo-concretis.

Hab. in truncis quibusdam Isthmi Panamæ, Amer. centr. — Insignis species manifeste pilis crusta agglutinatis tecta. Antequam explicetur in flabellum, fungus apparet veluti processus quidam tuberculosus, hymenophorus, stipitem simulans, unde posteriori vegetatione surgit forma conchata Substantia floccosa, elastica, tenax, brunneo-rufa, in partibus obsoletis canescens, fibris ramosis, prælongis, sinuosis, intricatis, sæpe latis efformata. *F. Mangiferæ* Lév. et *F. testaceæ* affinis.

26. **Fomes auriscalpioides** P. Henn. in Hedw. 1904, pag. 82 (*Gano-* 464

derma). — Pileo subhorizontali, tuberoso, convexo-rotundato, ferrugineo pruinoso vel sublanato, cute deinde rimoso, 1-3 mm. diam., 4-5 mm. crasso; stipite subcentrali v. excentrico, subtereti, flexuoso, rigido, proliferante, atro corticato, nitenti, laccato vel pruinoso, 5-6 cm. longo, 2-3 mm. crasso; tubulis 2-3 mm. longis, ferrugineis, poris minutis, punctiformibus, rotundatis, acie pallida dein ferruginea; sporis subglobosis vel late ellipsoideis, levibus, brunneis, 8-10 μ . diam.

Hab. ad ligna, Rio de Janeiro Brasilæ.

27. **Fomes subamboinensis** P. Henn. F. Amaz. I, pag. 175 (Hedw. 465

1904) (*Ganoderma*). — Pileo suberoso-lignoso, cochleariformi, concentrice sulcato, rugoso, cinnamomeo v. sanguineo laccato, nitido, margine obtuso, flavido, 3-10 cm. diam., stipite laterali plus minus elongato, interdum proliferante ramoso, concolori laccato; contextu subferrugineo; poris ferrugineis, rotundatis minutis, ca. 0,2 mm. diam.; sporis ovoideis, flavo-brunneis, levibus, 5-7 \approx 4-5.

Hab. ad truncos emortuos, Rio Jurua, St. Clara, Jurua-Miry,

Marary Amazoniæ (ULE). — Ab affini *F. amboinensi* præcipue sporis minoribus levibus diversus.

28. **Fomes aratus** Sacc. et D. Sacc., *Ganoderma sulcatum* Murr. in 466
Bull. Torr. Bot. Club 1902, XXX, pag. 607, nec *Fomes sulcatus* Cooke. — Pileo suberoso, dimidiato, sessili v. e. tuberculo laterali oriundo, supra plano v. convexo, postice crassiore, 8-11 × 2 cm., superficie laccato glabro, azono, fulvo v. castaneo, profunde sulcato, margine rotundato, velutino, ochroleuco, denique concolori; contextu molli, floccoso, radiato-fibroso, concentrice zonato, 1 cm. cr., umbrino-castaneo; tubulis indistincte stratosi, 125 cm. long., 4-5 in quaque mm., intus umbrinis, poris albidis v. flavidis, denique umbrinis, dissepimentis integris obtusis; sporis ellipsoideis, pallide flavido-brunneis, levibus, 8-10 × 4-6.

Hab. ad stipitem Sabaleos Palmetto, Florida (C. G. LLOYD).

— Fungus majusculus, sessilis, azonus, sed conspicue concentrice sulcatus. Peraffinis *F. zonato*.

29. **Fomes insularis** (Har. et Pat.) Sacc. et D. Sacc., *Ganoderma* (A- 467
mauroderma) *insulare* Har. et Pat. Journ. de Bot. 1903, p. 11.
— Terrester, mesopus, solitarius; pileo orbiculari, convexo, fusco-brunneo vel ochraceo, bis-ter profunde concentrice sulcato, plus minus transverse plicato-rugoso, centro (in sicco) minute cerebri-formi-alveolato, undique pruinoso; hymenio plano aut convexo usque ad marginem extenso, fusco-atro; poris mollibus angulosis mediis, dissepimentis tenuibus integris v. denticulatis; tubulis longiusculis, pallide umbrinis; sporis globoso-ovoideis, flavo-fuscis, subtiliter verruculosis, 13 × 10; stipite lignoso, rigido, cylindraceo, rugoso, fusco-atro, apice pallidiori, pruina fuscidula consperso, intus cavo, contextu pilei molli pallide cervino.

Hab. ad terram (« an ad lignum infossum? »), Ile des Pins, Nova Caledonia (BERNIER). — Pileus 3 cm. lat., tubuli 1 cm. long., trama 3 mm. cr. (centro); stipes 1-2 cm. long., 4 mm. cr. Affinis *Fom.* (Gan.) *pullato*.

CRYPTOPORUS (Peck) Shear in Bull. of the Torr. bot. Club. 1902, p. 450 (Etym. *cryptos* absconditus et *porus*) *Polyporus* sect. *Cryptoporus* Peck Bull. Torr. bot. Cl. 1880, p. 104. — A typo *Polypori* et *Fomitidis* differt pilei margine in extensionem volvæformem, pororum majorem partem tegentem producto.

1. **Cryptoporus volvatus** (Peck) Shear l. c., *Fomes volvatus* (Peck) 468
Sacc. Syll. VI, p. 165 cum varr. — Adde loca ad *Pinum virgi-*

nianam et *P. contortam Murrayanam* pr. Washington nec non in Colorado et Oregon Amer. bor.; Mexico (Prof. SILVIO BONANSEA!).

POLYSTICTUS Fr. — Syll. VI p. 208 IX p. 181, XI p. 90, XIV p. 185, XVI p. 254.

1. **Polystictus pusillus** Rostr. in Bot. Tidsskrift, Copenhagen 1902, 469 vol. 24, p. 209. — Pileo papyraceo, umbilicato, obsolete zonato, levi, glabro, ochraceo, margine crenato, 8 mm. lato, poris mediis, subhexagonis, albidis; stipite centrali, atro-fusco, scabro, 1,5 cm. longo, 1 mm. crasso.

Hab. in ligno, Siam Asiæ merid.

2. **Polystictus Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 42, 470 Syll. XVI, p. 1115 (nomen). — Pileo coriaceo, mesopodo, orbiculari v. reniformi, centro depresso v. umbilicato, pallide ochraceo, azono levi glabroque, 2-5 cm. diam.; margine tenui, integro vel subcrenulato; stipite excentrico, tereti farcto, firmo nigricante, ferrugineo-tomentoso v. pruinoso, basi discoideo, 2-5 cm. longo, 1,5-3 mm. cr.; hymenio pallide ochraceo, poris decurrentibus, brevissimis, punctiformibus, vix conspicuis, rotundatis, acie integris; sporis haud visis.

Hab. ad ligna, Kamerun Afr.

3. **Polystictus nigripes** Masee, in Kew Bull. 1901, p. 163. — Pileo 471 cyathoideo-infundibuliformi, carnosomembranaceo, lento, levi, glabro, pallide ochraceo, margine membranaceo integro, undulato; tubulis minutis, pileo pallidioribus, ore rotundato-angulato, circa 200 μ . diam.; sporis ellipsoideis, hyalinis $7 \approx 4$; stipite erecto, æquali 1-5 cm. longo, 2-5 mm. crasso, cute crustacea atra.

Hab. in ligno emortuo in horto botanico Aburi, Gold Coast Africæ occident. — *P. xanthopodi* Fr. affinis.

4. **Polystictus Parmula** Berk. et Hook. Journ. 1856, pag. 173. — 472 Syll. VI, pag. 214. — var. *madeirensis* P. Henn. F. Amaz. I, p. 179 (Hedw. 1904). — Pileis papyraceis, tenuibus, flaccidis, flabellatis vel rotundatis, umbilicatis, cinnamomeis, concentrice zonatis, nitentibus, margine inciso-lobatis, pallidis, 3-5 cm. diam.; hymenio cinereo-fuscescenti, poris rotundato-angulatis, ca. 60-70 μ . diam.; stipite gracili, corneo, pruinoso-fusco, radicante, ca. 15 cm. longo, 1-1½ mm. crasso.

Hab. ad terram silvaticam, Rio Madeira, pr. Marmellos Amazoniæ (ULF). — Præcipue poris multo minoribus (nec circ. 220 μ . diam. ut in typo) dignoscendus.

5. **Polystictus subbulbipes** P. Henn. F. St. Paulens III, pag. 202 473 (Hedw. 1904). — Pileo spongioso-molli, ferrugineo, mesopodo, subruguloso, tomentoso, ca. 5 cm. diam., $\frac{1}{2}$ -1 cm. crasso, margine tenui, subcrenato, carne spongiosa, ferruginea, 0,3-0,8 mm. crassa; stipite centrali inæquali, ferrugineo pruinoso, basi subincrassato, ca. 7 cm. longo, 4-5 mm. crasso; tubulis adnatis subdecurrentibus, 1-1 $\frac{1}{2}$ mm. longis, poris subrotundatis, acie incrassatis, ferrugineis; sporis globosis, 3 $\frac{1}{2}$ -4, 1-guttulatis, hyalino-flavidulis, levibus.

Hab. ad terram (?) Serra da Cantareira Brasiliæ. — *Affinis* *P. bulbipedi* et *P. Ehrenreichii*, sed præsertim sporis sphaericis nec ellipsoideis (6-8 \approx 5 in prima, 4-5 \approx 3,5 in altera) dignoscitur.

6. **Polystictus sacer** Fries Fung. Guin. t. 20. — Syll. VI, p. 213. — 474
var. **juruensis** P. Henn. F. Amaz. I, pag. 180 (Hedw. 1904). — Pileo coriaceo-lignoso, crasso, rigido, orbiculari, medio umbilicato rugoso, concentrice zonato, radiatim sulcato, rugoso, castaneo pruinoso, ca. 8 mm. diam.; stipite lignoso, radicato, tereti, flexuoso, castaneo, ferrugineo pruinoso, ca. 13 cm. longo, 3 mm. crasso; hymenio pallide fuscidulo, poris vix conspicuis, punctiformibus, rotundatis, contextu alutaceo.

Hab. ad terram silvaticam, Rio Juruá, Marary Amazoniæ (ULE). — Præcipue consistentia et poris punctiformibus a typo distinctus

7. **Polystictus atripes** Rostr. in Bot. Tidsskrift, Copenhagen 1902, 475 vol. 24, p. 209. — Pileo coriaceo-papyraceo, flavo, glabro, radiatim striato, margine tenui, flexuoso-lobato, ciliato, 4-5 cm. lato; poris minutissimis, decurrentibus; stipite centrali, longo, aterrimo, glabro, 4-5 cm. longo, 4 mm. crasso.

Hab. in Siam Asiæ merid.

8. **Polystictus Memmingeri** (Murr.) Sacc. et D. Sacc., *Coltricia Mem-* 476
mingeri Murr. Bull. Torr. Bot. Cl. 1904, p. 347. — Pileo valde irregulari, circulari vel dimidiato, e convexo plano vel depresso, 10 \approx 1 cm., extus fulvo vel brunneo, squamis imbricatis concoloribus vestito, margine alutaceo, pubescenti, sterili subacuto, undulato; cortice suberoso, fragili, azono 0,5-1 cm. cr., marginem versus tenuiore concolore; tubulis adnatis, 1-4 mm. longis, 1-3 in quoque mm., umbrinis, senio nigrescentibus; poris primitus circularibus et albidis, demum angulosi et sæpius obscurioribus, sepimentis integris dentatisve; sporis ovoideis, levibus, læte ferrugineis, vulgo 2-guttulatis, 7 \approx 4; hyphis aureis; cystidiis nullis; stipite centrali v. excentrico, subinde confluyente, brevissimo, crasso, basi dilatato,

1-3 \approx 3-5 cm., substantia colore et superficie cum pileo conformi.

Hab. ad terram ad Blowing Rock North Carolina Amer. bor.
(E. B. MEMMINGER).

9. **Polystictus circinatus** Fr. — Syll. VI, p. 208. — var. **triqueter** 477
(Fr.) Bres. Fungi polonici in Syd. Ann. myc. 1903, vol. I, p. 75.
Polyporus triqueter Fr. in Syll. VI, p. 248. — Sporis substramineis, ellipsoideis, 6-8 \approx 3,5-4,3; setulis hymenii fulvis, apice cuspidatis et ut plurimum curvatis, basi ventricosis, 50-80 \approx 6-15; hyphis contextus tubulorum, 2,5-5 latis.

Hab. quoque ad truncos Pini silvestris in Polonia rossica.
— Species hæc ad folia coacervata vel ad truncos Coniferarum obvia, quoad formam variabilissima, sæpe regularis stipite centrali, sed frequens etiam stipite excentrico vel laterali (= *Polyst. circinatus*) rarius vero stipite rudimentali nullo vel tantum pileo dimidiato aut postice attenuato (= *Polyst. triqueter*).

10. **Polystictus albo-luteus** Rostr. in Bot. Tidsskrift Copenhagen, 1902 478
vol. 24, p. 209. — Pileo tenui, papyraceo, reniformi, 1-2 cm. lato, albo-nitido, concentrice striato; margine in stipitem brevem, lateralem, basi scutato-dilatatum attenuato; contextu albo; poris minutissimis, luteis.

Hab. in ramis, Siam Asiæ merid.

11. **Polystictus Warmingii** Berk. Fungi Glaz. p. 752, Syll. VI, p. 103.
— Teste cl. Henn. F. Amaz. I, p. 176 (Hedw. 1904), ad hanc speciem vere proteiformem spectant *Craterellus sparassoides* Speg. et *Thelephora multifida* Kl. (= *Hydnum multifidum* Kl.) Henn. — Lectus quoque in Amazonia a cl. ULE.

12. **Polystictus Schmidtii** Rostr. in Bot. Tidsskrift, Copenhagen 1902, 479
vol. 24, pag. 210. — Pileis coriaceo-rigidis, tenuibus, imbricatis, conchatis, densissime concentrice striatis, tomentosulis, cinnamomeis, 1-2 cm. latis; poris minutissimis, ferrugineis, contextu concolori.

Hab. Siam Asiæ merid. — Habitus fere *Hymenochaetes rubiginosæ*.

13. **Polystictus tigrinus** Rostr. in Bot. Tidsskrift-Copenhagen 1902, 480
vol. 24, p. 209. — Pileo reniformi-orbiculari, ochraceo, distincte fusco-zonato, radiatim sericeo-striato, 3 cm. lato; stipite laterali, æquali, verrucoso, 1 cm. longo, 4 mm. crasso; poris mediis, decurrentibus, ochraceis.

Hab. in ligno, Siam Asiæ merid.

14. **Polystictus purpureo-albus** Rostr. in Bot. Tidsskrift, Copenhagen 481

1902, vol. 24, pag. 210. — Pileis imbricatis, dimidiatis, postice effusis, coriaceis, tenuibus, rugosis, glabris, fusco-purpureis, margine late albo; hymenio pallido; poris mediis, angulatis; dissepimentis tenuibus.

Hab. ad truncos, Siam Asiæ merid.

15. **Polystictus olivascens** Rostr. in Bot. Tidsskrift-Copenhagen 482
1902, vol. 24, pag. 209. — Pileo suberoso-coriaceo, horizontali, reniformi, fusco-olivaceo, zonato, adpresse sericeo, 1-2 cm. lato; stipite brevissimo, disciformi; contextu ferrugineo; poris minutis, ferrugineis.

Hab. ad truncos, Siam Asiæ merid.

16. **Polystictus minutissimus** Rostr. in Bot. Tidsskrift-Copenhagen 483
1902, vol. 24, p. 209. — Pileis gregariis, coriaceo-membranaceis, reniformibus, albidis, obscure zonatis, striatis, ca. 2 mm. latis; stipite albo exacte laterali, curto 0,5-1 mm; poris rotundis, albis.

Hab. ad ramos corticatos, Siam Asiæ merid.

17. **Polystictus simulans** Blonsk. — Syll. IX, p. 185. — var. **borealis** 484
Karst., *Coriolus simulans* (Blonsk.) Karst., var. **borealis** Karst. Fung. non Loennb. 1904, p. 3 (Finska Vetensk. soc.). — Pileo suberoso-coriaceo, dimidiato, convexo-plano, postice gibboso, pallescente, concentrice sulcato, rufo-striguloso, margine acuto obscuriore, circiter 3 cm. lato; poris rotundis tenuibus, minutis, flavescentibus.

Hab. unicum forte juvenile specimen prope Knopio Sibiriae: legit cl. O. A. F. LOENNBOHM.

18. **Polystictus applanatus** (Karst.) Sacc. et D. Sacc., *Coriolus applanatus* 485
Karst. Fungi nov. Loennb. 1904, pag. 3 (Finska Vetensk. Soc.). — Pileo suberoso-coriaceo, sessili, semiorbiculari aut spathulato, utrinque plano, subglabro, obsolete concentrice sulcato, margine extenuato, acuto, subinde confluyente, albo dein lutescente, 4-7 cm. lato, 1-3 mm. crasso; poris rotundis, exiguis, tenuibus, albis.

Hab. truncos, Tungust in Karelia boreali rossica. Legit rusticus carelicus.

19. **Polystictus changensis** Rostr. in Bot. Tidsskrift, Copenhagen 486
1902, vol. 24, p. 210. — Pileo tenui, plano, coriaceo, reniformi, glabro, dense concentrice striato-sulcato, vernicoso-polito, dilute brunneo, postice atro-purpureo, 4-5 cm. longo; contextu pallido; hymenio cinerescente; poris mediis exacte uniformibus.

Hab. in ramis exsiccatis et ad truncos Siam Asiæ merid.

20. **Polystictus crenatoporus** Rostr. in Bot. Tidsskrift-Copenhagen 487

1902, vol. 24, p. 210. — Pileo coriaceo, molli, tenui, sessili, albo-villoso, 1-3 cm. longo, 0,5 cm. lato; contextu citrino; poris mediis, irregularibus, citrinis; dissepimentis crenatis.

Hab. ad truncos, Siam Asiæ merid.

21. **Polystictus Gleadowii** Massee, in Kew Bull. 1901, pag. 152. — 488

Pileo semiorbiculari, dimidiato, sessili e convexo plano v. depresso, niveo tomentoso dein subglabrescenti, margine incurvo, 4-5 cm. lato; poris angulosis, albo-stramineis; carne fibrosa, alba, tenuissima; sporis albidis, ellipticis, 6-7 \times 4.

Hab. ad ligna emortua, Dehra Dun Indiæ britann. (GAMBLE).

— *P. virgineo* Cooke affinis.

22. **Polystictus sanguineus** (Lin.) Mey. Essequ. p. 304. — Syll. VI, 489

p. 229. — form. **lactescens** Henn. F. Amaz. I, p. 179. — Pileo albedo, nitidulo, concentrice zonato, breve lateraliter stipitato; hymenio cremeo-flavido, intus pallido.

Hab. ad caudices emortuos Rio Negro, Manáos Amazoniæ (ULE).

— Adsunt formæ cinnabarinæ albo-maculatæ transitum ad typum sistentes.

23. **Polystictus Gollani** P. Henn. F. Indiæ or. II, in Hedw. 1901, 490

p. 327. — Imbricato-cæspitosus, ca. 15 cm. longus, 20 cm. latus; pileo suberoso, dimidiato, crasso, superne margineque stupeo-fibroso, filis rigidis, ramosis stramineis vestito, vertice squamoso-rugoso tuberculato, rufofulvo, margine obtuso v. acuto stramineo-velutino usque ad 10 cm. diam.; poris rotundato-angulatis, 1-1,5 mm. diam. vel oblonge laceratis, decurrentibus, stramineis, acie subdenticulatis; sporis ellipsoideis, 1 grosse guttulatis, 7-10 \times 5-6 hyalinis, levibus; carne spongioso-suberosa, cremaceo-isabellina.

Hab. in truncis Terminaliæ tomentosæ, Siwalik Range Indiæ orient. — An potius *Trametes* spec.?

24. **Polystictus Shenoi** P. Henn. F. japonici IV, in Bot. Jahrbücher 491

vol. XXXI, 1902, pag. 737. — Imbricato-cæspitosus; pileo suberoso, coriaceo, rigido, dimidiato, convexo, apodo, sericeo-villoso, depresso-velutino, obsolete zonato, cinereo-umbrino, postice plerumque depresso obscuriori velutino, margine integro, obtuso suberoso, vel acutiusculo, 1,5-3 cm. lato, 1,5-2 cm. longo; contextu fulvo, hymenio levi, isabellino; poris curtis, minutis, punctiformibus, rotundatis, acie integris; sporis haud conspicuis.

Hab. in truncis arborum, Oki Japoniæ.

PORIA Fr. — Syll. VI p. 292, IX p. 189, XI p. 93, XIV p. 188, XVI, p. 159.

1. **Poria platensis** Speg. Mycet. argent. ser. II, 1902, p. 53. — Can- 492
dida, ab initio arida, late effusa 5-20 cm. diam., persistente, margine sensim effuso-evanescente, repandula, subiculo arcte ubique matrice adnato; hymenio subrimoso, albo v. dilute alutaceo; poris brevibus 0.3-0.5 mm. long., semper verticalibus polymorphis, nonnullis minutis angulato-subrotundis 0.3-0.5 mm. diam., aliis linearibus flexuosis 0.8-3 mm. long. commixtis; basidiis et sporis nondum inventis.

Hab. ad trabes pineas fabre factas, La Plata, in Argentina.

2. **Poria vaporaria** Fr. (vix Pers.) Syst. Myc. I, p. 382. — Syll. VI, p. 311.

Hab. quoque ad ligna Pini silvestris, in Polonia. — Color ex albedo ligneus; pori ampli, rotundati vel angulati, non flexuosi nec dædaloidei; sporæ hyalinæ, cylindræo-curvulæ, mobiles, $4 \times 1-1\frac{1}{4}$; hyphæ contextus crassiuscule tunicatæ, septatæ, ad septa sæpe unilateraliter nodosæ, $2\frac{1}{2}-3 \mu$. *Poriæ sinuosæ* affinis. Cum specimine cl. Friesii concordat; sed *Poria vaporaria* Pers. vix dubie identica cum *Poria Vaillantii* (De Cand.) Fr. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

3. **Poria undata** (Pers.) Bres. F. Polon. in Ann. Myc. 1903, p. 78. *Polyporus undatus* Pers. Myc. Europ. II, p. 90, tab. 16, f. 3, *Polyporus vitreus* Fr. (an Pers.?) Syst. Myc. I, p. 381, *Polyporus Broomei* Rabenh. Fungi Europ. n. 2004, *Polyporus cinctus* Berk. Outl. p. 250, *Poria vitrea* Pers. — Syll. VI, p. 296, etc.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Species hæc genuinum *Polyporum vitreum* Fr. sistere vix dubitandum, si diagnoses in Syst. Myc. l. c., Elenc. I, p. 119 et Hym. Europ. p. 577 comparantur. Specimina originalia non adsunt. *Poria vitrea* Pers. forte distincta, at ego frustra hucusque identitatem comprobare potui. Mea *Poria vitrea* in Hym. Hung. Kmet. p. 21 absque dubio est forma *Poriæ vulgaris* Fr. *Poria*, prout de *P. vitrea* prædicatur, mycelio xylostromeo, tenaci, separabili prædita; poris carnosis, sæpe in nodulos collectis etc., inter innumeras *Poriæ* formas a me visas, tantum in specie hic proposita quærenda. (Bresadola, l. supra c.).

4. **Poria sinuosa** (Fr.) — Syll. VI, p. 322, *Polyporus* Fr. Syst. Myc. I, p. 381, Icon. select. tab. 190, fig. 1.

Hab. quoque ad ligna adusta Pini silvestris, in Polonia.

Specimen examinatum prorsus typicum, cum figura l. c. plane concordans. Color ex luride albido ligneus vel alutaceus; pori ampli, flexuosi, dædaloides; sporæ hyalinæ, cylindraceo-curvulæ, $5-6\frac{1}{4} \times 1-1\frac{1}{4}$; basidia clavata, $15-16 \times 4-5$; hyphæ contextus tubulorum $2\frac{1}{2}-3\frac{1}{2}$ μ ., tenaces, non septatæ. Variat poris non sinuosis nec dædaloides: hæc forma sistit *Poriam vaporariam* auct. pl. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

5. *Poria radula* Pers. Obs. 2, p. 14. — Syll. VI, p. 310.

Hab. quoque ad ramos Coryli Avellanæ, in Polonia. — Sporæ hyalinæ, subglobosæ, $3-4 \times 3$, (non ut errore, ex inspectione Notæ ad speciem diversam spectantis, datum est in Hym. Hung. Kmet. p. 24); basidia clavata, $15-20 \times 4-5$; cystidia fusioidea, furfuraceo-tunicata, $50-60 \times 10-15$; hyphæ subhymeniales, crasse tunicatæ, $2-3$ μ . latæ. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 80).

6. *Poria Placenta* (Fr.) Sacc. — Syll. VI, p. 302.

Hab. quoque ad corticem Pini silvestris, in Polonia. — Subiculum manifestissimum, sed plus minusve evolutum, interdum usque ad 5 mm. crassum, suberoso-carnosum, ad marginem liberum, subrevolutum, ex albo pallide vinosum; tubuli carnosius, molles, subobliqui, hinc inde stratosi, usque ad 7 mm. longi, colore incarnato, dein fuscescente; pori medii, subrotundi vel oblongi, collabentes, concolores; sporæ hyalinæ, oblongæ, $5-6 \times 2\frac{1}{2}-3$; hyphæ contextus tubulorum $3-5$ μ . crassæ; hyphæ subiculi $3\frac{1}{2}-6$ μ . crasse tunicatæ. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

7. *Poria fumosa* Bres. et Pat. in Lloyd Myc. Not. n. 6, 1901, p. 49. — 493

Late effusa, griseo-fumosa; subiculo spongioso-membranaceo, 0,5 mm. cr., ambitu tomentosulo, sterili; tubulis 1 mm. long.; poris minutis, subrotundis v. angulatis, sæpe e situ oblique oblongis; hyphis $3-4$ μ . cr.; sporis obovato-subangulatis vel semilunatis, $4 \times 2,5-3$.

Hab. ad ramos in insula Samoa. — Forma pororum sæpe e loco natali pendet; si ad ramos prostratos, pori recti regulares, si ad ramos stantes, obliqui, oblongati etc.

8. *Poria locellata* (Karst.) Sacc. et D. Sacc., *Physisporus locellatus* 494

Karst. Fungi nov. Loennb. 1902, p. 8 (Finska Vetensk. Soc.). — Effusa, innata, tenuis, pallescens, sicca obscurior, intus locellis exiguis, plus minusve elongatis; poris exiguis rotundis vel variis, inæqualibus, tenuissimis, laceris fimbriatisque.

Hab. supra lignum semiputridum in regione Baicalensi, Listvinitschnoje Sibiriae, Aug. 1902 (O. A. F. LÖNNBOHM).

9. *Poria microspora* (Karst.) Sacc. et D. Sacc., *Physisporus microsporus* Karst. Fungi nov. Loennb. 1904, p. 8 (Finska Vetensk. Soc.). — Orbiculata, crassiuscula, pallescens, subiculo tenui; poris rotundatis, minutissimis æqualibus, dissepimentis tenuissimis.

Hab. supra lignum semiputridum prope Mustiala Fenniae semel tecta. — Dicitur *microspora*, sed de sporis nulla mentio.

10. *Poria lamellosa* P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. XXVIII, p. 35. — Resupinata, late effusa, crustuloso-coriacea, isabellina; hymenio poroso-lamellosa; poris decurrentibus, lacerato-labyrinthiformibus, acie inciso-denticulatis vel fimbriatis; basidiis clavatis; sporis subglobosis, hyalinis $3,5 \approx 3$.

Hab. in truncis, Usambara (KUMMER).

11. *Poria aneirina* (Somm.) Sacc. — Syll. VI, p. 314, *Poria corticola* Fr. pr. p. sc. forma in populo (status juvenilis).

Hab. quoque ad ramos et truncos Populi Tremulae, in Polonia. — Cl. Dr. H. O. Juel in sua egregia dissertatione «Muciporus und die Familie der Tulasnellaceen» speciem hanc ad novum genus *Muciporus* ducit ex eo quod basidia et sporas generis *Tulasnellæ* possidet. In specimenibus a me examinatis basidia jam absorpta et tantum sporas seu conidia, ut mavult cl. Juel, solutas vidi, obovatas, $5-6 \approx 3\frac{1}{2}-4\frac{1}{2}$. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

12. *Poria xantha* (Fr.) Sacc. — Syll. VI, p. 317, *Polyporus xanthus* Fr. Obs. I, p. 128?

Hab. quoque ad ligna Pini silvestris, in Polonia. — Specimen huc relatum dubium manet quia sterile. Color ex albo mox vivide flavo-luteus. Sporæ in specimenibus a me lectis, hyalinæ, cylindraceo-curvulae, $5-6\frac{1}{2} \approx 1\frac{1}{2}-2$; hyphae contextus tubulorum crasse tunicatae, $2\frac{1}{2}-3$. Specimen orig. *Poriae xanthæ* Fr. a me visum quoad structuram convenit, sed e vetustate decoloratum et sterile inveni. Etiam *Poria vulgaris* var. *flava* Fr. hic videtur referenda. Hujus specimina non exstant in Herbario cl. Friesii, sed adest specimen sub nomine *Poria vulgaris* var. *flavescens*, quod ad *Poriam molluscam* Pers. pertinet. *Poria xantha*, nostro sensu intellecta, affinis quidem *Poriae vulgari* Fr. est, sed bene specificè distincta. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

13. *Poria nitida* Pers. Obs. Myc. II, p. 15, tab. 4, f. (non Fr.) *Poria aurantiaca* (Rostk.) Sacc. — Syll. IX, p. 191, *Poria aurantiaca*

var. *saloisensis* Karsten in Revue Myc. n. 33, p. 10, *Poria xantha* Quél. (non Fr.) fide specimenum.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Subiculum ut plurimum manifestissimum, usque ad 6 mm. crassum, aurantiacum, in magis evolutis basi album, in exsiccatis sæpe roseum, ex hyphis crasse tunicatis, 3-6 μ . crassis, conflatum; tubuli et pori carnosus, molles, colore primitus carneolo dein vitellino vel aurantio-incarnato, compressione vel tactu fuscescentes, mox collapsi; sporæ hyalinae, oblongæ, 5-6 \approx 2 $\frac{1}{2}$ -3; basidia clavata, 12-15 \approx 5-6; hyphæ contextus tubulorum, intus granulosa, 2 $\frac{1}{2}$ -4 μ . Species hæc a *Poria placenta* colorum variatione modo diversa videtur et valde probabiliter tantum ejus forma. Cum mihi modo e specimenibus siccis hæc duo species sint notæ, distinctas retinui, sed melius in vivo considerandæ, utrum hæc distinctio revera comprobata, an non. *Poria nitida* Pers. absque dubio formam tenuiorem hujus speciei sistit, nam diagnosis et icon l. c. exhibitæ optime cum fungo nostro conveniunt. Contra *Poria nitida* Fr. prorsus diversa. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

14. *Poria carnosus* Rostr. in Bot. Tidsskrift, Copenhagen 1902, v. 24, 497 p. 211. — Pileo carnosus, molli, resupinato, marginato, 3-4 cm. diam.; contextu ferrugineo, margine obtuso, pallido; poris brevibus, mediis, angulatis, inæqualibus, ferrugineis.

Hab. ad truncos, Siam Asiæ merid.

15. *Poria myceliosa* Peck in Rep. of the State botanist 1901, p. 952. 498 — Subiculo membranaceo, a matrice facile secedente; poris brevibus, subrotundo-angulosis vel subflexuosis, tenuibus, acutis, dentatis vel sublaceratis, pallide luteis; sporis minutis, subglobosis, 2-2,5 μ . diam.

Hab. in truncis emortuis, Round Lake, Saratoga co. Amer. bor. 499

16. *Poria delicatula* P. Henn. in Bot. Jahrb. 1904, pag. 44. — Innata, omnino resupinata, effuso-crustacea, vix subiculosa, tenuissima; hymenio cretaceo-flavidulo; poris rotundato-angulatis, ca. 0,2 mm. diam., acie crassis, contextu subflavidis; sporis oblonge ellipsoideis vel ovoideis, sæpe inæquilateralibus, utrinque obtusis, intus guttulatis vel granulatis, hyalinis 9-12 \approx 5,5-6,5.

Hab. in ramis emortuis, Bomule, Ost Usambara Africæ orient. (ZIMMERMANN).

17. *Poria carbonicola* Karst. Fungi nov. Loennb. 1904, p. 4 (Fin- 500
ska Vetensk. Soc.). — Effusa, levigata, glabra, testaceo-spadicea,

opaca, ambitu depressa, concolor, 4-6 mm. crassa; poris perexiguis, tenuibus, rotundis nullâ membranâ impositis.

Hab. supra carbones in regione Baicalensi, Listvinschnoje Sibiria, Aug. 1902 (O. A. F. LÖNNBOHM).

18. *Poria Loennbohmii* Karst. Fungi nov. Loennb. 1904, p. 8 (Fin- 501
ska Vetensk. Soc.). — Effusa, marginata, adnata vel subinnata, pertenuis; poris minutis, obtusis, rotundis, ferrugineo-fulvis, dein pruina densa pallida vel albida obtectis, stratosi, stratum circiter 1 cm. crassum formantibus.

Hab. ad carbones in territorio Baicalensi, Listvinitchnoje Sibiria (O. A. F. LÖNNBOHM).

19. *Poria violacea* Fr. — Syll. VI, p. 319, diagn. imperfecta, Bres. 502
Fungi polonici in Syd. Ann. mycol. 1903, vol. I, p. 76. — Constantiter dilute violacea; subiculo tenuissimo; tubulis brevissimis ita ut potius *Merulius* appareat; poris mediis 0,5 mm. circ. latis, sæpe e loco oblongatis; sporis hyalinis, subcylindraceis, uno latere subcompressis $5 \approx 2,5-3$; hyphis contextus regularibus, $2-3,5 \mu$. lat.

Hab. ad ligna mucida pinea in Polonia rossica. — Species hæc rarissima vix ab auctoribus intellecta. Fries ipse in El. I, p. 118 cum aliis commiscuit. Etiam icon Rostkovii 27 tab. 3 a Friesio in Hym. Eur. p. 572 huc relata prorsus aliena. (Bres. l. c.).

20. *Poria sanguinolenta* (Alb. & Schw.) Pers. — Syll. VI, p. 330.
Polyporus Fr. Syst. Myc. I, p. 383, *Boletus* Alb. & Schw. p. 257.

Hab. quoque ad ligna pinea, in Polonia. — Forma hic exhibita est, meo sensu, forma typica, in statu vetusto vix distinguenda et generatim cum *Poria violacea* confusa. Frequens est ad ligna abiegna et pinea, sæpe etiam ad corticem, primitus omnino alba et tactu tantum cruentata, sed exsiccando incarnata evadit, dein in herbariis purpurea vel demum violaceo-fusca. In hac forma sporæ sunt $6-8 \approx 2-2\frac{1}{2}$; basidia $15-18 \approx 4-5$ et hyphæ subhymeniales $3-5 \mu$. cr. Forma vero ad ligna arbor. frond., a me in « Fungi Kmet. » p. 19-20 enumerata, forte specificè distinguenda, nam crassior est, poris magis regularibus, ætate et in herbario semper pallidior evadit et sporis et hyphis aliquantulo minoribus prædita (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 79).

21. *Poria rufitincta* B. et Curt. cfr. Syll. VI, p. 310 (nomen), A. 503
L. Smith Fungi from the West Indies in Linn. Soc. Jour. bot. vol. XXXV. — Late effusa, rufa, circa 1 mm. crassa; poris regularibus, minutissimis, circa 800 μ . diam., altitudine variantibus.

Hab. in insula Dominica Indiae occid.

22. *Poria purpurea* (Hall.) Sacc. — Syll. VI, p. 319 — *Polyporus* Fr. Syst. Myc. I, p. 379; Rostk. 27, tab. 3, Bresadola Fungi Hung. Kmet. p. 16, *Poria spissa* Schw. e specimine communicato, vix e diagnosi.

Hab. quoque ad ramos Alni, in Polonia. — var. *roseo-lilacina* Bres. l. c. (*Polyporus purpureus* Fr. El. I, p. 118, nec alibi). Ad ligna Betulæ, in Polonia. Hæc varietas a typo differt subiculo crassiusculo, dissepimentis tubulorum quoque crassiusculis, colore constanter roseo-lilacino, expallente; sporis et hyphis aliquantulo majoribus, sc. sporis cylindraceo-curveis, $8-10 \approx 2-2\frac{1}{2}$, hyphis usque ad 6 μ . latis. Est forma media ad *Poriam placentam* transiens. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 76).

TRAMETES Fr. — Syll. VI p. 334, IX p. 194, XI pag. 96, XIV p. 192, 1136.

1. *Trametes aratoides* Har. et Pat. Journ. de Bot. 1903, p. 8. — 504
Pileo conchiformi, lateraliter substipitato, rigido, fusco, concentrice et crebre sulcato, postice subruguloso, glabrato, margine undulato plus minusve profunde inciso-lobato, recto, luteo-olivascens; hymenio concavo, umbrino, cum zona marginali sterili angustissima; poris minutis angulosis, dissepimentis integris, crassiusculis; contextu luteo; tubulis brevibus, vix $\frac{1}{2}$ mm., umbrino-fuscis; cystidiis nullis; sporis non visis.

Hab. ad ligna emortua, Mea in Nova Caledonia (BERNIER). — Pileus 2 mm. cr.; stipes, ubi adest, 5 mm. long., basi discoidea; pori in quoque mm. 5. Affinis *T. arata* et *T. luteo-olivaceæ*.

2. *Trametes sepium* Berk. in Lond. Journ. Bot. VI, 6, p. 322. — Syll. VI, p. 342.

Hab. quoque ad palos Betulæ et Alni, in Polonia. — Sporæ hyalinae, oblongæ, lateraliter depressæ, $10-16 \approx 4-7$. Specimina europæa quam americana minus regularia, laxius imbricata, sæpe magis resupinato-producta, hymenio quoque magis lenzitoideo. Species hæc ad *Lenzitem albidam* Fr. proxime accedit et vix specificè distinguitur, nam modo colore pilei alutaceo differt, nota hæc variabilis cum *Trametes sepium* quoque interdum albida vel albidogrisea sit. Specimina *Lenzitis albidæ* prorsus cum figuris Friesii in Icon. select. tab. 177, f. 1 congruentia, a me visa, potius genuinam *Trametem* quam *Lenzitem* sistunt. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 81).

3. *Trametes subsinuosa* Bres. Fungi Polonici, in Ann. Mycol. 1903, 505

p. 82 (*Polyporus sinuosus* Aut. plur. non Fr.). — Generatim resupinata, raro rudimenta pileorum vel pileos genuinos exserens; ex orbiculari longe lateque effusa; subiculo tenui, membranaceo, $\frac{1}{2}$ mm. circiter crasso, albido, ambitu demum separabili et sub-reflexo vel pileiformi; pileis tunc 3-5 mm. antice protensis, tenuissimis, in magis evolutis zonatis, zonis interdum pubescentibus, ex albo griseolis; tubulis crassiusculis, 2-3 mm. longis, albidis; poris ex albido stramineis vel ochroleucis, mediis vel majusculis, $\frac{3}{4}$ 3 mm. latis, variantibus quoad formam sc. rotundatis, angulatis vel oblongis, acie demum lacerato-subfimbriata; sporis oblongo-subamygdaliformibus, hyalinis, $7-9 \approx 2\frac{1}{2}-3\frac{1}{4}$; basidiis clavatis, 20-25 \approx 5-6; hyphis tortuosis, crasse tunicatis mollibus, $3\frac{1}{2}-5\frac{1}{2}$ μ . latis, ad septa sæpe nodosis.

Hab. ad ramos corticatos Pini silvestris, in Polonia. — Species hæc *Trameti flavescenti* Bres. affinis, præcipue cum ejusdem formis resupinatis confluere videtur, sed colore primitus albido, poris majoribus et præsertim forma sporarum certe specificè distinguitur. Forma resupinata hucusque cum *Polyporo sinuoso* Fr. ab auctoribus fuit confusa, a quo optime diversa, ut, supra vidi-mus. Specimina teneo ex regione tridentina (ipse), ex Hungaria, Greschik 1898 n. 44) Germania et Anglia (Bres. l. c.).

4. *Trametes flavescens* Bres. Fungi Polonici in Ann. Mycol. 1903, 506

p. 80. — Pileis stuppeo-suberosis, effuso-reflexis, ut plurimum seriatis elongatis, sæpe scalaris imbricatis, tomentoso-villosis, stramineo-flavidis, lignicoloribus vel ochroleucis, 3-8 cm. latis, 1-1 $\frac{1}{2}$ cm. antice productis, margine obtuso; tubulis crassiusculis, 3-6 mm. longis, concoloribus; poris mediis vel majusculis, subrotundis, angulatis vel subsinuosis, $\frac{1}{2}$ -2 mm. acie ex obtusa demum subfimbriata, concoloribus; substantia fibroso-suberosa, lignicolore; sporis hyalinis, cylindræo-curvulis, 6-8 \approx 2-3; basidiis clavatis, 18-20 \approx 4-6; hyphis subhymenialibus crassiusculis, mollibus, crasse tunicatis, $2\frac{1}{2}$ -4 μ . latis.

Hab. ad palos Pini silvestris, in Polonia. — Species hæc *Trameti seriata* Fr. proxima, a qua tamen substantia magis fibrosa, pileis evidentius villosis, colore pororum et tubulorum nunquam pure albo et forma sporarum optime diversa. Hucusque in regione tridentina (ipse; in *Abiete excelsa* et *Pino silv.*) et in Polonia rossica observata. Variat ex integro resupinata, margine elevato tomentoso-villoso.

5. *Trametes cervina* (Schw.) Bres. Fungi Polonici in Ann. Myc. 1903, 507

p. 81, *Polyporus* Schw. Car. n. 902, *Polystictus cervinus* (Schw.) Sacc. — Syll. VI, p. 238, *Polyporus biformis* Fr. in litt. ad Klotz. Linn. (1833) VIII, pag. 486, *Polystictus biformis* (Fr.) Sacc. — Syll. VI, p. 240, *Polyporus populinus* Schulz. Mpt. p. 747, f. 3, *Polyporus vulpinus* Kalkbr. tab. 37, fig. 16, *Trametes populina* Bres. Hym. Hung. Kmet. p. 26.

Hab. quoque ad truncos *Populi tremulæ*, in Polonia. — In Fung. Hung. Kmet. deceptus specimine dubio Herbarii Musei Berolinensis frustra *Polyporum biformem* Fr. ad *Pol. pergamenum* Fr. duxi; sed postea, visis speciminibus authenticis Musei Upsaliensis tam *Polypori biformis* Fr. quam *Polypori cervini* Schw., mox diversitatem specierum hic in synonymia allatarum perspexi. (Bresadola l. c.).

6. *Trametes styricicola* P. Henn. in Engl. Jahrb. 1902, XXXII, 508 p. 40. — Pileo resupinato-effuso, tenui coriaceo, primo orbiculari, margine revoluta, papyraceo, pallido subnitenti, levi; poris mediis, angulatis, lacerato-inaequalibus, alutaceis, acie flaccidis, denticulatis; sporis subglobosis vel ovoideis, hyalinis, $3\frac{1}{2}$ -4 μ . diam.

Hab. in ramis emortuis *Styracis obakizæ*, Komaba-Tokyo Japoniæ (T. FUKUBARA). — Proxima *T. serpenti*.

7. *Trametes Theæ* Zimm. in Centr. f. Bakter, Parap. 1901, n. 3, 509 p. 101, fig. 1. — Adnata, tenuis, anguloso-orbicularis, applanata, sordide flava marginem versus sterilis; poris subrotundis, 0,15 mm. diam.; sporis . . . non visis.

Hab. ad radices et basin truncorum *Theæ* cultæ, cui gravem morbum affert, in insula Java.

HEXAGONIA Fr. — Syll. VI p. 356, IX p. 198, XI pag. 97, XIV p. 194, XVI p. 166.

1. *Hexagonia Casuarinæ* Pat. Champ. des colonies françaises in Bull. 510 du jard. colon. 1901, n. 2, p. 263, tab. I, f. 1-2. — Sessilis, 6-12 cm. lata, plana, coriacea, orbicularis, ochraceo-rubra, lucida, glabra, in extremitatibus integris v. sinuosis, parum villosa, concentricè pluri-sulcata et stipita, intense concolorata; hymenio rufo-brunneo, plano; poris hexagonalibus parvulis, parum profundis, interne cinereis, stratis integris obtusis.

Hab. in *Casuarina equisetifolia* in Nova Caledonia. — Ab *H. polygramma* poris minimis differt.

2. *Hexagonia amplexans* Pat. Bull. Soc. Mycol. 1902, p. 299, t. XIV, 511 f. 2. — Pusilla, 20-25 mm. lata, 20 mm. crassa, orbicularis, late-

raliter adnata, supra convexa, glaberrima, postice gibbosa minuteque papulosa, antice 2-3 sulcis concentricis ornata, margine acuto, tenui recto; inferiori parte convexa, postice decurrenti; poris latiusculis, brunneis, 4-5-gonis, dissepimentis integris, acutis, tenuibus, subchartaceis, tubulis profundis, 5-8 mm., glabris; cystidiis nullis; contextu brunneo, suberoso, vix concentrice striato.

Hab. in ramis emortuis *Acaciæ* in Nova Caledonia.

DÆDALEA Pers. — Syll. IV p. 370, IX p. 199, XI p. 100, XVI p. 167.

1. *Dædalea bonariensis* Speg. Myc. argent. ser. II, 1902, p. 52. — 512

Pileis quandoque solitariis, quandoque caespitosis et sæpe confluentibus, semiorbicularibus 35-70 × 20-40 mm. diam. ant. post., coriaceis, superne planiusculis v. concaviusculis, primo albis dein sordide subroseis v. subisabellinis, squamulosis vel tomentosulis, raro hirsutulis, ambitu glabratis, opacis, levibus, margine acutissimis, repandulis v. denticulatis, postice truncatis vel plus minus cuneatis; stipite brevi v. elongato usque 10 cm. longo, coriaceo; carne tenui, stuppota albo-subcarnea; hymenio primo albo, dein sordide subcarneo, 3-5 mm. crass., cum pileo concreto, in stipite decurrente; lamellis tenuibus dense sinuoso-gyrosis, confertis, acie acutis, integris; basidiis clavulatis 20-25 × 5-7 hyalinis; cystidiis nullis; sporis ellipticis 5-6 × 3,5-4,5, levibus, hyalinis, 1-guttulatis.

Hab. ad truncos putrescentes cariosos *S. Catilina* prope Buenos Aires in Argentina.

2. *Dædalea incana* (Karst.) Sacc. et D. Sacc., *Dædaleopsis incana* 513

Karst. Fungi nov. Loennb. 1904, p. 4 (Finska Vetensk. Soc.). — Pileo suberoso-coriaceo resupinato, crasse marginato, pubescente, incano, circiter 2 cm. lato; poris parvis, crassiusculis, difformibus, dein laceris, concoloribus.

Hab. ad corticem *Alni incanæ* prope Kuspio Sibiriae Junio (O. A. F. LÖNNBOHM).

3. *Dædalea boganidensis* Borecz. in A. Th Middendorf Reise in den 514

äussersten Norden und Osten Sibiriens, Band I, Th. 2, St. Petersburg 1850, p. 142. — Resupinata, determinata, primo erumpens tuberculosa, demum seriatim confluens incrustans, tenuis sublignoso-suberosa fuscescente-fulva, 5-7 cm. longa et lata, ambitu marginata pubescenti-velutina, luteo-fulva; poris subrotundis difformibusque laceris; subtus pubescente, fusca; contextu ligneo-fulvo.

Hab. ad ramos Laricis, Boganida, in Sibiria. — Modo crescendi evolutionisque tota historia ad *D. serpentem* Fr. accedit, tamen substantia sublignoso-suberosa, contextu ligneo-fulvo et colore pilei ejusque marginis bene diversa.

BRESADOLIA Speg. — Syll. VI, p. 388.

1. **Bresadolia Mangiferæ** Pat. in Duss. Enum. Champ. Guad. 1903, 515 p. 36. — Carnoso-coriacea, stipitata, mesopoda; pileo orbiculari convexo-plano, 10 cm. lato, 3-4 mm. cr., rufescente, tenuiter tomentoso, verruculoso-papuloso; stipite obconico, albido, 5 cm. long., apice 1 cm. cr., deorsum sensim tenuato, villosa, e portione tuberosa indurata brunnea et villosa oriundo; facie inferiore pilei et stipitis superioris alveolis poriformibus irregularibus, sterilibus excavata; trama alba, tota lacunis oblongis radiantibus partim superne, partim inferne apertis.

Hab. in trunco *Mangiferæ* indicæ, Camp-Jacob, Guadalupe. — Fungus omnino sterilis e *Polyporo* (= *Leucoporo*) oriunda.

CERIOMYCES Corda — Syll. VI p. 385, IX p. 201, XIV p. 194, XVI, p. 169.

1. **Ceriomyces sculus** Cavara in Bull. Soc. bot. ital. 1902, p. 188. 516 — Subhemisphæricus v. irregularis, primo mollis mucidusque, extus flavo-carneus, maculis sanguineis conspersus, intus fibroso-zonatus, pulverulentus, ochraceus, ad basim pedicellatam v. effusam typice radiatus, pileis longis, 250-280 \times 6-8, rigidiusculis castaneo-fuscis ornatus; sporophoris simplicibus v. parce ramosis, flavidis; sporis (gasterosporis) ad apicem sporophororum ortis v. intercalaribus, valde polymorphis, sphæricis, ovoideis, clavatis irregularibusque, sæpe pedicellatis, primo flavidis, dein ochraceis, granuloso-farctis, 8-32 \times 8-16.

Hab. ad corticem et lignum *Cytharoxyli* quadrangularis in horto botanico, Catania Siciliæ.

2. **Ceriomyces Stuckerti** Speg. Myc. Arg. Ser. I, in An. Soc. Cient. 517 Arg. 1899, p. 265. — Sessilis e suberoso lignosus repando-globosus 10-20 diam., 8-12 cm. crass., contextu fibroso-radiante ad basim compacto sublignoso intense fulvo-ferrugineo, ambitu sensim relaxato substupposo; sporis pulverulentis densissime constipatis, stratum 3-8 mm. crass., crassiusculum superficiale efficientibus, pulchre ferrugineis, globosis 10-15 μ . diam., episporio crasso levi vestitis, intus protoplasmate dense minuteque granuloso-farctis;

sæpe adsunt sporæ alteræ piriformes 15-20 \times 10-14, anticæ rotundatæ, postice cuneatæ atque in pedicello breviusculo attenuatæ.

Hab. ad truncos dejectos putrescentes, prope Córdoba Argentina.

FAVOLUS Fr. — Syll. VI p. 390, IX p. 202, XI pag. 101, XIV p. 195, XVI p. 169.

1. **Favolus albidus** Massee in Bot. Tidsskrift, Copenhagen 1902, v. 24, 518 p. 217. — Pileo membranaceo, lento, albido, glabro, convexo-expanso, 1-2 cm. lato; poris e rotundato-subhexagonis, radiatim dispositis, albido-stramineis, ætate pallidis; stipite centrali, subæquali, concolori 1,5-2,5 cm. longo.

Hab. ad terram prope Kloug Sou, Siam Asiæ merid. — *Fav. Sprucei* Berk. affinis.

2. **Favolus portoricensis** (Murr.) Sacc. et D. Sacc. *Hexagona portoricensis* Murr. Bull. Torr. Bot. Cl. 1904, p. 331. — Pileo centrali-stipitato, circulari, profunde umbilicato, 4 \times 0,3 cm. extus subglabro, umbrino, centro concolori, margine integro, subtenui, sicco valde inflexo; contextu albo, fibroso, 1 mm. cr., opaco; tubulis subdecurrentibus, albis 2 mm. long., 4-6 angulis; poris 3 \times 1 mm., prope marginem magis regularibus minoribusque; acie tenui, fimbriatula; sporis ellipsoideis, levibus, hyalinis, 2 guttulis, 8-10 \times 3-5; stipite centrali, compresso, deorsum tenuato, subconcolori, minute tomentoso, 2 cm. long., 4 mm. cr.

Hab. ad ligna putrida in montibus Porto Rico (EARLE). — *Fav. hondurensis* affinis.

3. **Favolus hondurensis** (Murr.) Sacc. et D. Sacc. *Hexagona hondurensis* Murr. Bull. Torr. Bot. Cl. 1904, p. 331. — Pileo centrali-stipitato, circulari, leviter umbilicato, 2-4 \times 0,05 cm., extus leviter radiato-striato, subglabro, fulvo, centro fuligineo; margine tenui, regulari, tessellato, sicco inflexo, ciliis numerosis, brevibus fugaciter fimbriato; contextu albo, fibroso, 0,25 mm. cr., marginem versus translucido; tubulis adnatis, albis, 0,3 mm. longis, hexagonis, radiatim elongatis; poris 2 \times 1 mm., prope marginem multo minoribus, acie tenui subintegra; sporis ellipsoideis, levibus, hyalinis, 9 \times 3-5; stipite centrali, æquali concolori, pruinoso v. glabrescente, 2-3 cm. long., 2 mm. cr.

Hab. ad truncos emortuos, Honduras (PEROY WILSON).

4. **Favolus caperatus** Pat. Champ. de la Guadeloupe ser. III, in Bull. 521 Soc. Myc. de France t. XVIII, fasc. II, 1902. — Pileo carnoso,

putrescibili, solitario v. pluribus basi cohærentibus, convexo-planis, plus minus inciso-lobatis, in sicco rufescentibus deorsum cuneatis, tomento brevi denso, griseo, antice rarescente obductis, margine inflexo nec ciliato nec tessellato; alveolis radiantibus profundis, angulosis, concoloribus, sepimentis carnosis, latis, mollibus, acie fimbriatis; cystidiis nullis; sporis ovoideo-cylindræis, hyalinis, $10-12 \times 5$.

Hab. ad truncos Byrsonimæ spiratæ in Guadalupa (Duss).

— Pileus sessilis vel tuberculo subrotundo, laterali suffultus. A *F. tessellato* tomento mox dignoscitur.

5. **Favolus bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 43. 522

— Syll. XVI, p. 1116 (nomen). — Pileo carnosulo submembranaceo, lateraliter stipitato v. subsessili, flabellato vel subreniformi, reticulato-rugoso, albido-flavescente, 2-8 cm. lato, 2-5 cm. longo; stipite brevi v. obsoleto, compresso, basi discoideo; alveolis oblonge rhomboideis v. pentagonis, ca. 2-7 mm. longis, 1,5-2,5 mm. latis, acie flaccidis, tenuibus, denticulatis, concoloribus.

Hab. ad caudices et ramos, Kamerun Afr.

6. **Favolus Taxodii** (Murr.) Sacc. et D. Sacc. *Hexagona Taxodii* Murr. 523

Bull. Torr. Bot. Cl. 1904, pag. 332. — Pileo reniformi, applanato, umbonato, sessili, $3-6 \times 6-8 \times 0,2$, extus glabro, radiato-striato, cremeo v. ochraceo, e centro ad marginem semel v. bis undulato, margine tenui, integro, inæqualiter undulato-lobato, sicco deflexo; contextu molli, albo, homogæneo, 0,5 mm. cr.; tubulis atro-fulvis, hexagoniis, non radiatim elongatis, $1,5 \times 1$, acie tenui, minute denticulata; sporis ellipsoideis, levibus, hyalinis, 14×7 , copiosis; stipite discum scutatum vix 1 cm. lat. formante.

Hab. ad truncos Taxodii distichi, pr. Miami, Florida Americæ borealis.

7. **Favolus tessellatulus** (Murr.) Sacc. et D. Sacc., *Hexagona tessellatula* Murr. Bull. Soc. Bot. Cl. 1904, p. 330. 524

— Pileo flabelliformi convexo, postice depresso, $1-3 \times 2-4 \times 0,2$ cm., extus leviter et minute tessellato, minute hispido, demum glabrescente, albo, sicco flavido, margine tenui, denticulato, sicco leviter incurvo, sæpe brunneo et hygrophano; contextu albo, membranaceo, translucido; tubulis decurrentibus, albis, 2 mm. long., 4-6-angulis; poris 3×1 mm., demum radiatim confluentibus, acie tenui, lacerata; sporis ellipsoideis, levibus, hyalinis, 2-guttulatis, 10×3 ; stipite laterali, brevi, sursum subincrassato, concolori, hispido, 3-5 mm. long., 2-3 mm. cr., vulgo supra umbilicato.

Hab. ad ligna putrescentia, Cuba (UNDERWOOD et EARLE).

8. **Favolus microsporus** (Murr.) Sacc. et D. Sacc., *Hexagona micro-* 525
spora Murr. Bull. Torr. Bot. Cl. 1904, p. 328. — Pileo flabelli-
formi v. reniformi, convexo, vulgo umbilicato, v. postice depresso,
2-4 \approx 2,5 \times 0,2-0,4 cm., extus glabro, levi, stramineo vel cremeo,
margine acuto, undulato v. sublobato, raro reflexo, irregulariter
denticulato, atro-brunneo; contextu albo, 1-2 mm. cr.; tubulis
decurrentibus, ochraceis, 1-2 mm. long.; poris 4-6-angulis, 0,3-
0,5 \times 0,6-1 mm. acie firma, denticulata; sporis ellipsoideis, levibus,
hyalinis, 9 \times 3; stipite laterali v. excentrico, infra subincrassato,
concolori, minute tomentoso v. glabrescente, 1-7 mm. long., 3-5
mm. cr.

Hab. ad truncos emortuos Betulæ, Bar Harbor Maine Ohio,
New York, New Jersey, Wisconsin Amer. bor. — *F. alveolari*
similis.

9. **Favolus fragilis** (Murr.) Sacc. et D. Sacc., *Hexagona fragilis* Murr. 526
Bull. Torr. Bot. Cl. 1904, p. 329. — Pileo flabelliformi, convexo,
depresso, 2,3-2,4 \times 0,1-0,3 cm.; extus dense hispido, minute radia-
to-striato, candido, dein arescendo cremeo; margine crassiusculo,
regulâri, sicco inflexo, partim hygrophano, breve fugaciter fim-
briato; contextu tenui, albo, partim translucido, sicco fragili; tu-
bulis decurrentibus albis, 2-3 mm. long., 4-6-angulis, poris 4 \times 1,
demum radiatim confluentibus, sublamellosis, acie tenui, lacerata,
sepimentis fimbriatis; sporis ellipsoideis, levibus, hyalinis, 10 \times
4-5; stipite laterali subæquali, concolori, hispido, brevi, 5 mm.
long., 2,5 mm. cr., rarius supra umbilicato.

Hab. ad truncos Chrysophylli in Jamaica (EARLE).

10. **Favolus Wilsonii** (Murr.) Sacc. et D. Sacc., *Hexagona Wilsonii* 527
Murr. Bull. Torr. Bot. Cl. 1904, p. 329. — Pileo flabelliformi,
applanato, 4,7-4,9 \times 0,05-0,2 cm., extus radiato-striato, leviter hi-
spido, partim tessellato, candido, dein arescendo cremeo, margine
tenuissimo, vulgo lobato v. fisso, pilis fugacibus consperso; con-
textu carnosissimo, membranaceo, albo, partim v. omnino trans-
lucido; tubulis decurrentibus, albis, 1-2 mm. long., 4-5-angulis;
poris 1,5 \times 5 mm., prope marginem minoribus, acie tenuissima,
denticulata; sporis ellipsoideis, levibus, 10 \times 5; stipite exacte late-
rali, æquali, concolori, 0,5-1 cm. long., 2,5-5 mm. cr., hispido,
supra umbilicato.

Hab. ad truncos putres, Mont. Luquillo, Porto Rico (PERCY
WILSON).

11. *Favolus floridanus* (Murr.) Sacc. et D. Sacc., *Hexagona floridana* 523
Murr. Bull. Torr. Bot. Cl. 1904, pag. 330. — Pileo flabelliformi
applanato, 2-2,5 × 3-0,2 cm., extus hispidulo, candido dein are-
scendo stramineo, tenuiter radiato-striato; margine leviter undu-
lato, tessellato, ciliis numerosis minutis fimbriato; contextu tenuis-
simo albo, membranaceo, translucido; tubulis decurrentibus, albis,
dein ochraceis, 1,5-2 mm. longis, typice hexagoniis; poris 2-3 ×
0,5-1, non radiatim confluentibus, acie tenui, fimbriata; sporis el-
lipsoideis, levibus, hyalinis, 9 × 4; stipite laterali subæquali, basi
scutato, concolori, hispido, 2-3 mm. long., 1-2 mm. cr.

Hab. ad truncos putres in silvis pr. Miami, Florida, Amer. bor.

LASCHIA Fr. — Syll. VI p. 404, IX p. 204, XI pag. 103, XIV
p. 196, XVI p. 170.

1. *Laschia amœne-rosea* P. Henn. F. St. Paul. III, p. 202 (Hedw. 520
1904). — Pileo gelatinoso, convexo sessili laterali affixo, ca. 400-
500 µ. diam, amœne rosea pallescente, levi, cellulis ovoideis vel
subglobose-clavatis, echinulatis, roseolis, 20-30 × 15-25; poris pau-
cis, 5-8, rotundatis; basidiis clavatis, 13-18 × 4; sporis ellipsoideis
hyalinis, 4 × 3.

Hab. in ramis emortuis, Alto da Serra, St. Paulo Brasiliæ (ULE).
— Perexigua, sessilis, pulchella species.

2. *Laschia (Favolaschia) sanguinea* P. Henn. in Engl. Boh. Jahrb. 530
1901, p. 43. — Syll. XVI, p. 1116 (nomen). — Pileo gelatinoso,
tenui, suborbiculariter campanulato v. reniformi, centro umbonato,
reticulato-tuberculato 5-11 mm. diam., sanguineo v. atro-rubro;
hymenio plano v. subconvexo concolori; alveolis rotundatis v. ob-
longis subangulatis, acie integris, crassiusculis 1-1,5 mm. diam.,
stipite gracili, levi, glabro, sanguineo, basi pallide byssino 1,5-2
cm. longo, 1,5 mm. crasso; sporis ellipsoideis, hyalinis 5-6 × 4.

Hab. ad ligna putrida, Kamerun Afr.

3. *Laschia (Porolaschia) chaugensis* Rostr. in Bot. Tidsskrift, Copen- 531
hagen 1902, vol. 24, pag. 211. — Orbicularis carnosogelatinosa,
superne brunnea, glabra, subtus carnea, sessilis, puncto dorsi ex-
centrico affixa 1-1,5 cm. lata; hymenio reticulato-poroso.

Hab. ad truncos, Siam Asiæ merid.

4. *Laschia (Porolaschia) cæspitosa* Berk. — Syll. VI, pag. 407. P. 532
Henn. in Hedw. 1903 p. (76). — Dense cæspitosa; pileo carnosogelatinoso,
convexo, pallido, pellucido, levi, glabro, vertice obtuso
applanato, pallide brunneo, interdum conico subumbonato, 0,8-

1,5 cm. diam.; stipite centrali, tereti, carnoso, subfistuloso, albedo, sublevi v. pruinoso 2,5-4,5 cm. longo, 2-3 mm. cr., basi incrassato; hymenio plano v. convexo, lacteo; poris adnexis, interdum decurrentibus, subrotundatis v. oblonge angulatis, ca., 0,7-1 mm. diam.; tubulis usque ad 3,5 mm. longis; carne ca. 1 mm. cr.; basidiis clavatis, 16-20 \times 4-6, sterigmatibus 2-4; sporis late ellipsoideis, intus granulatis, hyalinis, 4-4,5 \times 3-3,5.

Hab. gregatim in radicibus vetustis, Eumundi, S. Queensland, Australiæ. — Diagnosis Berkeleiana omnino incompleta.

MERULIUS Hall. — Syll. VI p. 411, IX p. 205, XI p. 104, XIV p. 200, XVI p. 172.

1. *Merulius pseudolacrymans* P. Henn. F. Indiæ or. II, in Hedw. 533 1901, pag. 328. — Carnosus, dimidiato-apodus vel subimbricatus. aurantio-rufescens v. pallescens, sublevis, glaber v. pruinosis 4-12 cm. diam., margine obtuso pallido subvillosus; hymenio ceraceo, alveolato-plicato v. reticulato, ferrugineo; poris angulato-rotundatis 1-2 mm., acie obtusis, integris; sporis subgloboso-ellipsoideis flavidis, obtusis, 1-guttulatis, 4-5 \times 3,5-4.

Hab. in radicibus arborum, Saharanpur-Garden Indiæ orient.

2. *Merulius aureus* Fr. El. I, p. 62. — Syll. VI, p. 415.

Hab. quoque ad ligna Pini silvestris, in Polonia. — Species hæc rarissima sæpe rudimenta pilei exserit; color subiculi et marginis aureus; hymenium concolor exsiccando aurantium; sporæ stramineæ, cylindraceæ, 3 $\frac{1}{2}$ -4 $\frac{1}{2}$ \times 2-2 $\frac{1}{2}$; hyphæ 2-3 μ . latæ (Bressadola, Fungi Polonici in Ann. Mycol. 1903, p. 82).

3. *Merulius molluscus* Fr. Syst. Myc. I, p. 329, Icon. select. t. 193, f. 2. — Syll. VI, p. 416, *Merulius læticolor* Berk. et Br. Ann. Nat. Hist. n. 1681, *Merulius subaurantiacus* Peck 38 Rep. St. Mus. p. 93! *Merulius aureus* Auct. pl. non Fr.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Sporæ flavidæ, ellipsoideæ, 5 $\frac{1}{2}$ -7 \times 4-4 $\frac{1}{2}$ rarius 5 $\frac{1}{2}$ μ .; basidia clavata, 30 \times 6-8; hyphæ 3-5 μ . latæ. Variat crassior et tenuior, margine fimbriato vel subreflexo et subpileato, hymenio carneo, carneo-aurantio etc. (Bressadola, Fungi Polonici in Ann. Mycol. pag. 83).

4. *Merulius himantioides* Fr. Syst. Myc. I, p. 329, Icon. Sel. t. 193, f. 1. — Syll. VI, p. 415 — *Hydnum Pinastri* Fr. Syst. Myc. I, p. 417! *Hydnum sordidum* Weinm. Ross. p. 370!

Hab. quoque ad ligna Pini silvestris, in Polonia. — Sporæ

ellipsoideæ, sub microscopio flavo-aureæ, fulvescentes, $5-6 \approx 3\frac{1}{2}-4\frac{1}{2}$. Hymenium in speciminibus vetustis hydnoideum. Hunc statum sistunt *Hydnum Pinastri* Fr. et *Hydnum sordidum* Weinm., prout e speciminibus originalibus a nobis examinatis clare comprobatum fuit. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 83).

5. *Merulius crispatus* Fl. Dan. tab. 716, f. 2, Fries Syst. Myc. I, p. 328. — Syll. VI, p. 418.

Hab. quoque ad ramos Alni glutinosæ et Coryli Avelanæ, in Polonia. — Sporæ hyalinæ, oblongæ, sæpe biguttulatæ, $4-4\frac{1}{2} \approx 2-2\frac{1}{2}$; basidia clavata $15-20 \approx 4-5$; hyphæ $3-4\frac{1}{2}$ μ . latæ. Parum a *Merulio serpente* Tode diversus. Meo sensu *Merulius fugax*, *M. porinoides* et *M. crispatus* vix formæ *Merulii serpentis* Tode considerandæ. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 83).

6. *Merulius hydroides* P. Henn. in Hedw. 1903, XXI, p. 179. — 534 Absque diagnosi.

Hab. in lignis fabrefactis humidis in Germania. — L. c. p. 183 cl. Hennings ex iisdem locis descripsit speciem alteram, ut videtur, novam, sed sine nomine.

SOLENIA Hoffm. — Syll. VI p. 424, IX p. 208, XI p. 106, XIV p. 201, XVI p. 172.

1. *Solenia confusa* Bres. Fung. Polonici in Ann. Mycol. 1903, p. 84 535 (*Solenia anomala* Aut. pr. p.). — Turbinato-substipitata; receptaculis dense gregariis vel basi connatis et cæspitulos circulares, 2 mm. circiter latos, sæpe confluentes, efformantibus, mycelio tenui farinaceo insidentibus, villosis, subcervinis, expallentibus, $\frac{1}{2}$ mm. circiter latis, disco e cinereo pallido; sporis pure hyalinis, cylindraceo-subcurvulis, $7-10 \approx 2-2\frac{1}{2}$; basidiis clavatis, $30 \approx 4-6$; pilis luteis, apice granulosis, $250-600 \approx 3$, sæpe conidiophoris; conidiis $8-10 \approx 4\frac{1}{2}-6$.

Hab. ad ramos corticatos Alni glutinosæ, Salicis cinereæ, Betulæ et Populi tremulæ, in Polonia. — Species hæc forma connata *Solenice anomalæ* et forma gregaria *Solenice stipitatae* simillima, a quibus nota sporarum præcipue diversa. In *Solenia anomala* sporæ sunt hyalino-stramineæ, $7-11 \approx 4-5$. Etiam *Solenice populicolæ* videtur proxima, sed sporis fere duplo minoribus, forma et colore receptaculorum distincta.

2. *Solenia stipata* Fr. Syst. Myc. II, p. 106. — Syll. VI, f. 428.

Hab. ad ligna arbor. frond., in Polonia. — Sporæ hyalinæ,

subcylindraceæ, 8-10 \times 3-4; basidia clavata, 30-34 \times 6-7; pili griseo-fusci, sub micr. lutei, apice sæpe hyalini, inflati, conidia obovata 7-9 \times 5-7 exserentes; discus pallidus. A *Solenia anomala* differt forma cupulari receptaculorum et deficientia subiculi tomentosi. Discum nigrescentem nunquam vidi. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 84).

PHÆOSOLENIA Speg. Mycetes argentinenses, ser. II, 1902, pag. 53 (Etym. *phaeos* fuscus et *Solenia*). — Fabrica et natura *Soleniæ*, sed sporæ ochraceæ. In Tab. comp. fung. (vol. XIV, p. 10) genus hoc occupabit n. 122.

1. **Phæosolenia platensis** Speg. l. c. — Subiculum effusum arcte ma-⁵³⁶trice adnatum plagulas majusculas sordidas 1-10 cm. diam. efficiens, ambitu indefinitum, pilis erectis 20-60 \times 3-5 fulvellis, hirsutum; pileis numerosissimis, dense gregariis, rectis v. cernuis, turbinatis, margine obtuse rotundatis 0,4-0,8 mm. alt., 0,3-0,5 mm. diam.; pilis confertissimis, brevibus acutiusculis 15-25 \times 2-3, continuis, levibus, albo-velutinis; basidiis clavulatis 20 \times 6-7, obtusis, sterigmatibus 2-3 brevissimis coronatis; cystidiis nullis; sporis utrinque obtusis vel subacutatis 5 \times 4-5, grosse uni-guttulatis e chlorino-ochraceis.

Hab. ad ramos vetustos putrescentes. *Manihotis carthagenensis*, La Plata in Argentina.

Fam. 3. Hydnaceæ.

HYDNUM L. — Syll. VI p. 430, IX p. 208, XI p. 106, XIV p. 201, XVI p. 174.

1. **Hydnum umbilicatum** Peck in Rep. of the State Botanist 1901, 537 p. 953. — Pileo carnoso, convexo, glabro, umbilicato, rufo brunneo, 12-36 mm. lato; carne alba, sapore grato; aculeis planis, fragilibus, subæqualibus, pileo pallidioribus; stipite subæquali, glabro, firmo, albido 2,5-3,5 cm. longo, 4-8 mm. crasso; sporis globosis 7,5-10 μ . diam.

Hab. in silvis, Hague, Amer. bor. — *H. rufescenti* affinis.

2. **Hydnum Ikeni** Sacc. ad interim *Hydnum*.... P. Henn. F. japonici IV, 538 in Bot. Jahrbücher vol. XXXI, 1902, p. 736. — Pileo carnoso, subramoso-imbricato, pallide isabellino, superne longitudinaliter

striatulo, interdum verrucoso, margine inciso-lobato, basi in stipitem porrecto, ca. 15 cm. longo; hymenio subisabellino, aculeis densissimis, basi fasciculatis, filiformi-subulatis, acutis, ca. 0,5-1 cm. longis, 100-200 μ . cr.; basidiis clavatis; sporis ovoideis 4-5 \times 3,5-4 hyalinis.

Hab. ad truncos Carpini spec., Musashi Japoniæ. — Exemplaria visa tantum sicca et contracta, hinc forma ignota. Forte ad subgenus *Merisma* spectat.

3. *Hydnum graveolens* Delast. — Syll. VI, p. 442. — var. *subzonatum* Peck Rep. St. Bot. 1903, p. 24. — A typo differt pileo plus minus zonato aculeisque pallidioribus. 539

Hab. ad terram North Elba et Lake Pleasant, Amer. bor.

4. *Hydnum imbricatum* L. — Syll. VI, p. 430. — forma *dolichopus* 540
C. Mass. Novit. Fl. Myc. ver. 1902, p. 73. — Pileo superne squamis parvis (deciduis?) vestito, stipite laterali (ad instar *Hydni auriscalpii*) usque ad 10 cm. longo et 1 cm. crasso.

Hab. ad terram pr. Tregnago Italia bor.

5. *Hydnum colossus* Bres. Myc. Lusitanici novi in Atti R. Acc. di 541
Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 130. — Pileo carnoso, crasso, e convexo explanato-depresso, margine repando, levi, pubescente, badio-rubiginoso, usque ad 15 cm. lato; aculeis validis, confertis, pileo concoloribus, usque ad 2 cm. longis; stipite napiformi, valido, solido, concolore, pruinato, apice punctato-scabro, 6 cm. circ. longo, apice 4 cm., basi 1-2 cm. cr.; carne lurido-pallida, subconcolore, odore forti, subnauseoso, sapore subamaro; sporis angulato-echinulatis, stramineis, 7-8 \times 5-7; basidiis clavatis 35-40 \times 6-8.

Hab. ad terram in pinetis pr. Setubal Lusitaniæ. — *Hydno versipelli* Fr. proxime affine.

6. *Hydnum albo-magnum* Banker in Bull. Torr. Bot. Cl. 1901, p. 207. 542
— Pileo levi, glabro, repando, 5-8 cm. lato; substantia carnosa, fragili, alba; stipite brevi, crasso, centrali v. excentrico, 2-4 cm. alto, 1-2,5 cm. cr., in basim incrassatam expanso; dentibus tenuibus, 2-4 mm. longis, breve decurrentibus; sporis ovoideis, interdum irregularibus, apiculatis, minutis 3,5-4 \times 5,5-7.

Hab. ad terram Auburn Ala Amer. bor. — Affine *Hydno repando* et *albido*, sed colore, glabritie, sporis, statura diversum.

7. *Hydnum diabolicum* Rick in Ann. Mycol. 1904, p. 244. — Pileo 543
2 cm. lato, 3 mm. crasso, carnoso, fragili, brunneo-atro, tomento levi consperso; aculeis 3 mm. altis, regularibus, densis, ex cine-

reo brunneo-atris non decurrentibus; stipite 1-2 cm. alto, 4 mm. lato, versus terram brunneo-tomentoso; sporis valde verrucosis 6-8 μ . diam., globosis vel irregularibus brunneis.

Hab. ad terram in silvis prope S. Leopoldo Brasiliæ.

8. **Hydnum boreale** Banker in Bull. Torr. Bot. Club 1902, XXIX, 544 p. 553. — Albo-virescens, udum; pileo crasso, convexo, undulato, 12-15 cm. lat.; stipite brevi, crasso, compresso, 7 cm. long., 7 cm. lat., e lat. 2 cm. cr.; aculeis brevibus, 5 mm. long., 5 mm. lat., apicibus albis rotundatis vel in sicco interdum nodulosis, decurrentibus, brunneolis; substantia zonata, strato superiore albo, inferiore obscuriore; spongiosa, crassa, inferius compactiore, stipitis dilute azurrea; mycelio purpurascente, persistente; odore ingrato.

Hab. ad terram humosam et inter folia Mont Desert Americæ borealis.

9. **Hydnum humidum** Banker in Bull. Torr. Bot. Club 1902, p. 553. 545 — Flavidum, dein brunneum, hygrophanum; pileo irregulari, spongioso, scrobiculato, 9 cm. v. amplius lat.; stipite obtuso, brunneo, circ. 2 cm. long., 1,5 cm. cr.; aculeis 5 mm. long., brunneis, apice albis; substantia suberosa, sicca duriore et grisea vel lignicolore, maculis obscurioribus subcartilagineo-gummosis notata intusque zonata; odore forti non ingrato; sapore dulci.

Hab. ad terram detriticam compactam, Mont Desert Amer. bor.

— Fungus vivus, ubi pressus, aquam exsudat.

10. **Hydnum cyaneo-tinctum** Peck Bull. Torr. Bot. Cl. 1903, p. 98. — 546 Pileo vix tenaci, potius molliter spongioso, subplano, minute tomentoso, albido v. fulvescente, margine cyaneo-tincta; carne isabellina v. pallida, demum ferrugineo-brunnea; stipite brevi, firmo, fere usque ad pileum tomento isabellino dense vestito; sporis globosis, verrucosis, coloratis, 4 μ . diam.

Hab. ad terram, Orris Island Maine (Miss A. C. ANDERSON). —

Subaffine *H. suaveolenti*, sed inodorum, carne diverse colorata, stipite dense tomentoso.

11. **Hydnum cristatum** Bresadola in Journ. of Mycol. 1902, apud 547 Atkinson. — Pileo 6-10 cm. lato, convexo expanso plus minusve inæquali, irregulari, margine interdum undulato, carnosio, crasso, molli vel sæpe duro ochraceo-luteo, strigoso-cristato; stipite concolori 6-10 cm. alto, 8-15 mm. crasso; aculeis 3-6 cm. longis, brunneo-olivaceis, dein intense griseis, decurrentibus; basidiis clavatis 25-30 \times 6-8, 4-sporis; sporis brunneo-olivaceis in charta, sub lente pallide brunneis, globosis, tuberculatis, 4-5 μ . diam.

Hab. ad terram, Blowing Rock N. C., in America boreali.

12. *Hydnum juranum* (Quél.) Sacc. et D. Sacc. *Dryodon juranum* Qué- 548
let Assoc. franç. p. l'Avanc. Scienc. 1901, part. II, 1902, p. 496,
tab. III, f. 10. — Trunco erecto, ramoso, villosa, albo, ramis aculeis brevibus, confertis, acutis, roseo-rubris obtectis; carne elastica, sapida, alba; sporis sphaericis, 6-7 μ . diam., ocellatis, hyalinis.

Hab. ad caudices pineos in Jura pr. Neuchâtel autumno (L. FAVRE).

13. *Hydnum cucullatum* Har. et Pat. Champ. rec. au Japon, in Bull. 549
du Mus. d'hist. nat. 1902, n. 2, p. 130. — Totum albido-lutescens, simplex v. imbricato-caespitosum, pileo carnoso, glaberrimo, conchiformi, postice marginato, dorsaliter affixo, pendulo, margine undulato, plus minusve lobato, inflexo; aculeis confertis, simplicibus, acutis, 3 mm. circiter longis.

Hab. ad truncos, Chuizupi Japoniae.

14. *Hydnum conigenum* Peck, Bull. Torr. Bot. Cl. 1903, p. 97. — 550
Pileo coriaceo, 1-2 cm. lat., obconico, supra subplano, levi, minute pubescente, griseo-aurantiaco v. flavido, subinde margine fisso; substantia fibrosa, azona, aurantio-brunnea; aculeis brevibus decurrentibus, albidis dein brunneis; stipite tenui, centrali v. subexcentrico, pileo concolore, deorsum incrassato ob massam spongioso-tomentosam, aurantiam, sporis globosis, coloratis, 4-5 μ . diam.

Hab. ad conos Pini ponderosæ, ad pedes Mont Moscow Idaho Amer. bor. (L. F. HENDERSON). — Affine *H. aurantiaco* sed minus, stipite tenuiore, pileo levi, substantia azona.

15. *Hydnum dichroum* Pers. Myc. Europ. II, p. 213 (Cfr. Syll. VI, 551
p. 456), *Hydnum ochraceum* Quél. non Pers. fide specimenum. — Pileis coriaceis, dimidiato-sessilibus, basi sæpe porrectis, dense imbricatis, pallidis, tomentoso-villosis, levibus vel sulcato-zonatis, parvis, 1 cm. circiter latis, 5-6 mm. antice productis; aculeis crassiusculis, spathulatis, teretibus immixtis, apice demum incisus, carneolis; sporis subglobosis, 1-guttulatis, 4-5 \times 3 $\frac{1}{2}$ -4; basidiis clavatis, 15-20 \times 4-5; cystidiis clavatis vel subfusoides, superne furfuraceo-tunicatis, 60-80 \times 7-9, demum deterisis tumque 5-7 μ . latis.

Hab. ad corticem Pruni Padi, in Polonia. — Species hæc ab *Hydno pudorino*, cui ceu synonymon a cl. Friesio subjungitur, clare distincta pileo crassiori, generatim dimidiato-sessili, aculeis spathulatis et sporis fere globosis, 1-guttulatis. (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 84).

16. *Hydnum sajanense* (Karst.) Sacc. et D. Sacc., *Sclerodon sajanensis* 522

Karst. Fungi nov. Loënnb. 1904, p. 4 (Finska Vetensk. Soc.). — Pileo membranaceo, effuso-reflexo, glabro, circiter 3 cm. lato; aculeis confertissimis, acicularibus, gracilibus, flaccidis, æqualibus, ferruginascentibus, circiter 3 mm. longis.

Hab. in cortice arborum frondosarum in regione Sajanensi Sibiriae, Sept. 1902 (O. A. F. LÖNNBOHM).

17. *Hydnum sericeum* (Pat.) Sacc. et D. Sacc., *Acia sericea* Pat. in 553
Duss Enum. Champ. Guadel. 1903, p. 19. — Tenue, omnino resupinatum, fragile, ochraceo-pallidum, margine floccoso-albido, vix distincto; aculeis æqualibus, confertis, brevissimis, 200-300 \times 50-80, apice sterilibus, habitum velutinum præbentibus; cystidiis nullis; basidiis claviformibus, 13-15 \times 4-6, sterigmatibus quaternis; sporis incoloribus, ovoideo-globulosis, levibus, 6 \times 4.

Hab. ad radices sublignosas Scitamineæ cujusdam, Camp Jacob. Guadalupa (Duss).

18. *Hydnum populinum* Peck Rep. of the State bot. 1899, p. 846. — 554
Resupinatum, effusum, 4-8 mm. long., subiculo tenui, minute flocculoso dein submembranaceo, adnato albo vel albido, margine tenuissimo, nudo, albo; aculeis sparsis vel congestis, brevissimis, obtusis dein papilliformibus, 1 mm. longis, teretibus vel mutua pressione compressis, albis, sæpe leviter roseo-tinctis, intus stipatis superficie distantiusculis; sporis albis, ellipticis 6-7,5 \times 3-3,5.

Hab. in corticibus Populi tremuloidis, Gansevoort Americæ borealis.

19. *Hydnum pexatum* Masee in Kew Bull. 1901, p. 157. — Subi- 555
culo resupinato late et irregulariter effuso, submembranaceo, ochraceo; aculeis confertis, brevibus, acutiusculis, apice subincisis, nonnullis levissime umbilicatis; sporis ellipsoideis, hyalinis, 7 \times 5.

Hab. ad ligna emortua, in Tasmania (RODWAY).

20. *Hydnum combinans* Peck Rep. of the State bot. 1899, p. 846. — 556
Late effusum; subiculo tenui, floccoso-farinoso, adnato, indeterminato, albido; aculeis ad marginem sparsis, albidis, v. stipatis, subfasciculatis, cremeo-luteis, vel constricto-conicis, duriusculis, subobtusis, margine ciliatis; sporis subglobosis, 3-4 μ . diam., uniguttulatis.

Hab. in truncis decorticatis, Warrensburg, Amer. bor. — Aculeis vere multiformibus ad *Poriam Odontiamque* vergit. Ab *Hydno farinaceo* et *H. stipato* satis diversum.

21. *Hydnum chlorascens* Pat. Champ. Algero-Tunis., in Bull. Soc. 557
Myc. de France T. XVIII, 1902, fasc. I. — Resupinatum, mem-

branaceum, molle, albidum, subtile, fimbriatum, mycelio albido, ramoso circumdatum; aculeis initio albis, deinde rubris et postremo olivaceis, simplicibus, dense stipatis 3 mm. long., conicis, acutis, carnosis, facile secedentibus; cystidiis nullis; sporis ovoideo-fusiformibus singulis, hyalinis, 8×3 , acervatis rubro-chlorinis.

Hab. in ligno decorticato putri *Quercus Suberis*, El Feidja, Algeria.

22. *Hydnum fastigiatum* Rick Ann. Mycol. 1904, p. 243. — Resupinatum, effusum, ceraceum, subiculo tenui, flavescenti, margine griseo, fimbriato, ochraceo-ferrugineum; dentibus in apice et ad latera multiramosis, clavariæformibus, glabris, compressis, albis, deinde ochraceo-ferrugineis, usque 2 mm. altis, usque 4 mm. latis, denticulis 0,5 mm. latis; sporis ovoideis $5-6 \times 3$; basidiis 10×6 ; sterigmatibus quaternis 6 μ . longis; cystidiis basidio paullo angustioribus.

Hab. in ramis putridis St Leopoldo, Rio grande do Sul Brasilæ. — Dentes similes sunt ramificationi *Clavariæ fastigiatæ*. Siccando læte aurantiacum.

23. *Hydnum balsameum* Peck Rep. State Bot. 1903, p. 15. — Resupinatum; subiculo tenuissimo albido vel pallido; aculeis conicis, dense sparsis, non confertis, brunneis, superficiem brunneam redentibus.

Hab. in lignis decorticatis *Abietis balsameæ*, North Elba, Amer. bor. Interdum per corticem repit.

24. *Hydnum macrescens* Banker in Peck Rep. St. Bot. 1903, p. 15. — Resupinatum, effusum, subiculo vix 1 mm. cr., ochraceum, subfarinaceum (præcipue in partibus tenuioribus), rimosum, margine indeterminato; mycelio albo, arachnoideo, circa subiculum expanso; aculeis sparsis, minutis, $\frac{1}{10}$ – $\frac{1}{4}$ mm. long., 50–100 μ . cr., obtusis, sæpe furcatis, subiculo concoloribus sed pallidioribus, apice subciliato albo.

Hab. in hymenio *Sterei* frustulosi lignoque emortuo proximo, Saratoga Co Amer. bor. — Affine *H. sulphurello* Peck a quo differt colore, margine indefinito, aculeis ciliatis etc.

25. *Hydnum Earleanum* D. R. Sumstine, Torreya Apr. 1904. — Resupinatum; aculeis 3–6 mm. long., aureo-flavis . . .

Hab. in latere inf. truncorum decorticatorum *Ostryæ virginianæ*, Armshung County, Pa Amer. bor.

PROTOHYDNUM Moell. — Syll. XIV, p. 251.

1. ?**Protohydnum lividum** Bres. Fungi Polonici, in Ann. Mycol. 1903, 562 pag. 117. — Subiculo late effuso, adnato, ceraceo-membranaceo, ambitu similari, fusco-livido vel fusco-vinoso fertili; aculeis parvis, papilliformibus, acutis, $\frac{1}{2}$ mm. circiter longis, concoloribus, apice sterilibus, interrupte crescentibus, in sicco collabentibus; sporis hyalinis, subglobosis vel obovatis, interdum uno latere subcompressis et crasse 1-guttulatis, $5\frac{1}{2}$ -8 \approx 4-5; basidiis late obovatis, 9-10 \approx 6-8, 2-4-sterigmaticis; hyphis conglutinatis, crasse tunicatis, $1\frac{1}{2}$ μ . circiter latis.

Hab. ad ligna mucida Betulæ, in Polonia. — Species hæc in sicco *Sebacinam* refert, nam aculei omnino collapsi, nec amplius visibiles, in vegeto vero evidentissimi, sed tantum interrupte conglomerato-crescentes, subiculum quoque, ubi aculei desunt, fertile est; aculei tantum infra dimidium fertiles.

IRPEX Fr. — Syll. VI p. 482, IX p. 213, XI p. 110, XIV p. 205, XVI p. 178.

1. **IrpeX lacteus** Fr. Fl. I, p. 145, Bres. Hym. Hung. Kmet. p. 37 563 cum syn. — Syll. VI, p. 485.

Hab. quoque ad truncos Alni, in Polonia. — Bres. Fungi Polonici in Ann. Mycol. 1903, p. 88. — var. **canescens** Bres. l. c. (*IrpeX canescens* Fr.). — Syll. VI, p. 485. — Ad ramos Frangulæ Alni et Populi tremulæ, in Polonia. Specimina examinata pulchella, parva, hymenio ex maxima parte cyclomycetoideo; sporæ cylindraceæ, uno latere subdepressæ, $5-7\frac{1}{2}$ \approx $2\frac{1}{2}$ - $3\frac{1}{2}$; basidia clavata, 20-25 \approx 5-6; cystidia furfuraceo-truncata, fusioidea, valida, 60-100 \approx 8-10; hyphæ contextus $2\frac{1}{2}$ -4 μ .

2. **IrpeX tasmanicus** Syd. Ann. Mycol. 1903, p. 177, *I. depauperatus* 564 Massee in Kew Bull. 1901, pag. 157, nec B. et Br. — Subiculo resupinato, tenui, cervino, ambitu tomentoso, albido; aculeis subconfertis, obsolete reticulato-convexis, brevibus, lateribus subincisis; sporis ellipsoideis, 6 \approx 3-4, hyalinis.

Hab. in ligno emortuo in Tasmania (RODWAY).

RADULUM Fr. — Syll. VI p. 493, IX p. 214, XI pag. 111, XIV p. 206, XVI p. 178. — Cfr. Grev. XX p. 33.

1. **Radulum spatulatum** (Schrad.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 89. *Hydnum* Schrad. Spic. tab. 4, f. 3, *IrpeX spatulatus* Fr. El. I, p. 146. — Syll. VI, p. 490.

Hab. ad ligna Pini silvestris, in Polonia. — Species hæc potius *Radulum* quam *Irpeæ*. Subiculum bene evolutum subcераceum et aculei vix coriacei, insuper sæpe tuberculati et teretes. Sporæ hyalinæ, 1-guttulatæ, subglobosæ, $3\frac{1}{2}$ - $4\frac{1}{2}$ \approx $3\frac{1}{2}$ -4; basidia clavata, 15-20 \approx 4-5; hyphæ 2-3 μ . Teste cl. P. Hennings, hujus speciei status gasterosporus esset *Ceratomyces rubescens* Boud.

2. *Radulum Eichlerii* Bres. Fungi Polonici in Ann. Mycol. 1903, p. 89. 565

— Effusum, luride carneolum, margine byssino, albido; subiculo tomentoso-submembranaceo; tuberculis ceraceo-subspongiosis, irregulariter sparsis, cylindræis vel spathulatis vel compressis, apice truncatis, pubescentibus, interdum poroso-connexis, in sicco valde diminutis, pallidis, apice sub lente fimbriatis; sporis flavo-rufis, subglobosis, uno latere subdepressis, 5-7 \approx $4\frac{1}{2}$ - $6\frac{1}{2}$; basidiis clavatis, 30-35 \approx 7-8, 2-4 sterigmaticis; hyphis tenuibus, septato-nodosis, 4-7 μ . latis.

Hab. ad truncos Coryli Avellanæ in Polonia. — Species hæc exsiccando collabitur, deformatur et vix primitivæ formæ vestigia relinquit.

3. *Radulum stratosum* Annie L. Smith Journ. Linn. Soc. XXXV, 566

pag. 8, tab. 1, fig. 1-5 (extr.). — Syll. XVI p. 1116 (nomen). — Effusum, fuscum, margine paullo reflexum, circa 1 mm. crassum; tuberculis dentiformibus, raro papilliformibus, minutis, obliquis, fuscis, plerumque in apicem pallidum sterilem attenuatis; thallo sectione verticali e stratis cellularum parenchymaticum et sporarum velut inclusarum pluribus alternis composito; basidiis amplis, irregularibus, obtusis; sporis ovato-oblongis, spadiceis, levibus 10 \approx 7.

Hab. ad ligna, in ins. Dominica Indiæ occid. — In formam rosaceam crescit.

GRANDINIA Fr. — Syll. VI p. 500, IX p. 215, XI pag. 113, XIV p. 207, XVI p. 179.

1. *Grandinia Burtii* Peck Rep. of the State bot. 1899, pag. 847. — 567

Resupinata, tenuis, adnata, minute rimosa, alba vel albida, dein cremeo-lutea, ambitu definito albo; granulis minutis, hemisphaericis vel papillosis, numerosis, stipatis sed parce congestis; sporis subellipsoideis 6 \approx 5.

Hab. in corticibus Fagi, East Galway, Saratoga co., Amer. bor. (E. A. BURT).

2. *Grandinia cinereo-violacea* P. Henn. in Hedw. 1903, p. (74). — 568

Crustacea, innata, late effusa, emarginata, interdum rimosa, con-

textu cinnamomeo, hymenio cinereo-violaceo, pruinoso, dense granulato, granulis verruciformibus, subfimbriatis, ca. 60-100 μ . diam.; sporis subglobosis, 3-4 μ . diam., levibus.

Hab. in truncis corticatis, Eumundi, S. Queensland Australiæ (L. PRITZEL).

3. *Grandinia helvetica* (Pers.) Fr. Hym. Eur. p. 627. — Syll. VI, p. 502 — *Hydnum* Pers. Myc. Europ. II, p. 184.

Hab. quoque ad truncos *Populi tremulæ*, *Betulæ*, *Tiliæ*, *Abietis* et *Pini silv.*, in Polonia. — Mycelium himantioideum, e fibrillis pallidis, reticulatis, ex hyphis regularibus 5-7 μ . crassis, conflatis constans; granulis globosis, in sicco ut plurimum collapsis, griseo-alutaceis; sporis globosis, hyalinis, punctato-asperulis, $4-4\frac{1}{2} \approx 3\frac{1}{2}-4$; basidiis clavatis, 20-25 \approx 4-6; hyphis contextus hic illic inflatis, 4-8 μ . latis. (Bresadola, *Fungi Polonici* in *Ann. Mycol.* 1903, p. 89).

PHLEBIA Fr. — Syll. VI p. 497, IX p. 215, XI pag. 112, XIV p. 207.

1. *Phlebia Kriegeriana* Henn. in *Hedw.* 1902, p. (146). — Mycelio 569 (subiculo) albido, carnosio-membranaceo, effuso, ambitu tenui-membranaceo, effuso, ambitu tenui-membranaceo v. fibroso-radiato-fimbriato; hymenophoro ex tuberculis usque 0,5 mm. altis, sæpe anastomosantibus, carnosulis, demum longitudinaliter plicatis vel obtuse rimulosis, formato; tuberculis subinde pluribus, ex uno puncto oriundis et radiantibus; hymenio læte brunneo, griseo-variegato; basidiis clavatis, 2-4-sterigmata ferentibus; sporis cylindræis, curvulis, utrinque rotundatis, 3,5-4 \approx 1,5-2, hyalinis levibus.

Hab. in trunco dejecto, vetusto, *Aceris Pseudoplatani* in cacumine Winterberg, in Helvetia Saxonica (W. KRIEGER). — Descriptionem plenioram et forte magis exactam confer loco citato.

2. *Phlebia albida* Fr. Monogr. II, p. 280. — Syll. VI, p. 438.

Hab. quoque ad ramos *Alni*, in Polonia. — Cartilagineo-membranacea, ex orbiculari oblonga, vegeta substraminea vel pallide alutacea, demum centro tinctura subcarneola, exsiccano candicans vel flavescens, margine albo-fimbriato, rugis radiantibus obsita, centro papillosa; sporæ hyalinæ, subcylindrææ, $4\frac{1}{2}-5 \approx 2\frac{1}{2}-2\frac{3}{4}$; basidia clavata 15-20 \approx 4-5; hyphæ 4-5 μ . (*Bresadola, Fungi Polonici* in *Ann. Mycol.* 1903, p. 90).

ODONTIA Pers. — Syll. VI p. 506, IX p. 216, XI p. 113, XIV p. 208, XVI pag. 180.

1. **Odontia diaphana** (Schröd.) Quél., Bres. Fungi Pol. in Ann. Mycol. 1903, p. 87, *Hydnum diaphanum* Schröd. Spic. tab. 3, f. 3? — Syll. VI, pag. 472.

Hab. quoque ad truncos Carpini, in Polonia. — Species hæc, meo sensu intellecta, vix specificè distincta ab *Od. crustacea*. Structura identica, modo aculei regulariter explicantur, e granuliformibus teretibus, elongatis, usque ad 2 mm. longis, glabris, apice sterili, subfimbriato, raro bifido, subdiaphanis. *Hydnum diaphanum*, subiculo diaphano, nondum vidi (BRESADOLA l. c.).

2. **Odontia brassicicola** Bres. Myc. Lusitanici novi, in Atti R. Acc. di 570 Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 131. — Late effusa; subiculo tomentoso, albo, ubique fertili; aculeis dense congestis, e granulosis verruciformibus, apice breviter fimbriatis, albis, minutis, vix 0,5 mm. long.; sporis subvirguliformibus, 3,5-4,5 \times 1,5-2 hyalinis; basidiis clavatis, 15-18 \times 5; hyphis 2,5-4,5 μ . latis.

Hab. ad caules vetustos exsiccatos Brassicæ oleracæ pr. Setubal Lusitanicæ.

3. **Odontia stipata** (Fr.) Quél. Fl. Myc. pag. 435, *Hydnum* Fr. Syst. Myc. I, pag. 425. — Syll. VI, pag. 473.

Hab. quoque ad truncos Ulmi, in Polonia. — Subiculum tomentosum, ex hyphis tenacibus, copiosis, 2-2½ μ . latis conflatum; aculei dense congesti, breves, fimbriati vel dentati; sporæ subglobosæ, punctatæ, hyalinæ, 4 \times 3; basidia clavata, 12 \times 3-4. Ab *Odontia farinacea* præcipue subiculo tomentoso distincta (BRESADOLA, Fungi polonici in Ann. Mycol. 1903, p. 87).

4. **Odontia subalbicans** (Pers.) Bres. Fungi polonici in Ann. Mycol. 571 1903, p. 87, *Thelephora granulosa* β . *subalbicans* Pers. Syn. p. 576, *Hydnum* Myc. Europ. II, p. 184 — Sordide albida, tenuis, granulis concoloribus plus minusve dense congestis, demum subverruciformibus, apice subfusco fimbriato; sporis hyalinis, subcylindraceis, 7-10 \times 3-4; basidiis clavatis, 30-35 \times 6-7; hyphis irregularibus 5-6 μ . crassis.

Hab. quoque ad truncos querneos in Polonia. — Bene evoluta *Odontia bicolori* Alb. et Schw. sat similis evadit.

5. **Odontia Himantia** (Schw.) Bres. Fungi polonici in Ann. Mycol. 1903, pag. 85, *Hydnum* Schw. n. 992, Bres. Hym. Hung. Kmet. p. 30 c. syn. — Syll. VI, p. 469.

Hab. quoque ad truncos *Coryli* et *Quercus*, in Polonia. — Sporæ genuinæ, hyalinæ, oblongæ, $8-10 \times 3-4$ (non ut in *Hym. Hung.* Km. loc. cit. errore exposui) basidia clavata, $24-28 \times 6-8$; hyphæ contextus $3-4 \mu$. latæ. Pulchra hæc species hucusque jam pluribus locis in Europa lecta, scil. in Hungaria (Kmet, Greschik) in Suecia (Romell) et in Polonia rossica (Eichler). Crescit etiam ad truncos Coniferarum.

6. *Odontia lusitanica* Bres. Myc. Lusitanici novi, in Atti R. Acc. di 572
Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 131.
— Resupinata et late effusa; subiculo tenui, submembranaceo, in siccio cartilagineo; aculeis carnosius, exsiccando corneis, subulatis, dense aggregatis v. basi connatis, apice fimbriatis, glabrescentibus, ex hyalinis pallide carneo-rumosis, 6-10 mm. longis, basi 1 mm. circ. cr.; sporis obovatis, $6-7 \times 4-4,5$ hyalinis; basidiis clavatis, $25-30 \times 6-7$; cystidiis subfusoides, apice obtusis, $12-15 \mu$. latis.

Hab. ad truncos *Amygdalis communis* pr. Setubal Lusitanicæ.

7. *Odontia platensis* Speg. Mycol. argent. ser. II, 1902, pag. 54. — 573
Pileis tenuibus, primo suborbicularibus, 2-5 mm. diam., centro roseo, margine matrici adnatis, latiuscule sterilibus albis, subfimbriatulis dein confluentibus, margine relaxato involuto; hymenio tenui, ceraceo subochroleuco v. subroseo laxo v. crebre granuloso, granulis hemisphæricis, $0,3-0,4$ mm. alt. et diam., obtusis v. acutiusculis ac subpenicillatis; basidiis obovatis 12×8 , sterigmatibus brevibus minutis sporis 8-10 μ . diam. hyalinis, minute apiculatis, guttulatis.

Hab. ad ramos aridos *Paulowniæ imperialis* La Plata in Argentina.

8. *Odontia acerina* Peck Rep. of the State botanist 1899, p. 847. — 574
Effusa, tenuissima, crustacea, adnata, indeterminata, griseo-isabellina; verrucis minutissimis, papillatis, 1 vel pluri-pallide-ciliatis; sporis hyalinis, ellipsoideis, $7,5 \times 4$.

Hab. in ligno et in corticibus emortuis *Aceris rubri*, Montezuma, Amer. bor. — *O. rimosissimæ* valde affinis.

9. *Odontia Brinkmanni* Bres. Fungi Polonici in Ann. Mycol. 1903, 575
p. 88. — Ex albo luride alutacea; subiculo tenui, farinaceo-subcrustoso; aculeis subdistantibus, e granuloso acutato-fimbriatis, brevibus, $\frac{1}{2}-1$ mm. demum longis; sporis hyalinis, cylindræis $3\frac{1}{2}-4\frac{1}{2} \times 2-2\frac{1}{2}$; basidiis clavatis, $12-14 \times 4-5$; hyphis $2-2\frac{1}{2} \mu$. cr.

Hab. ad truncos *Alni* et *Betulæ*, in Polonia. — Habitus *Odonticæ papillosæ*, sed subiculo tenuiori et sporis minoribus bene

distincta. Primo detexit et claro Bresadola communicavit egregius mycologus W. BRINKMANN.

0. *Odontia straminella* Bres. Myc. Lusitanici novi, in Atti R. Acc. 576 di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 131. — Effusa; subiculo albo, tenui, submembranaceo, margine fimbriato; sterili; aculeis albis, demum stramineis, subdistantibus, verruciformibus, minutis, apice multifidis, 500-650 μ . long.; sporis obovatis, 4-5 \times 2,5-3 hyalinis; basidiis clavatis, 15 \times 4; hyphis crasse tunicatis, 2-3 μ . latis.

Hab. ad ramenta lignea, conos Pini etc., prope Satubal Lusitanæ.

1. *Odontia bicolor* Alb. et Schw. p. 270. — Syll. VI, p. 470. — *Hydnum subtile* Fr. Syst. Myc. I, p. 425! — Syll. VI, p. 476.

Hab. quoque ad truncos Pini silvestris et Betulæ albæ, in Polonia. — Sporæ hyalinæ, cylindraceæ, 5-7 \times 2½-3; basidia clavata, 15 \times 4-5; cystidia capitata, capitulo aculeato, 7-15 μ . diam. vel rarius glabro, 6-9 μ . Specimina originalia Schweinitziana in Herbario Link asservata vidi, quæ exacte concordant cum speciminibus *Hydni subtilis* Fr. Musei Upsaliensis (BRESADOLA Fungi polonici in Ann. Mycol. 1903, p. 87).

MUCRONELLA Fr. — Syll. VI p. 512, IX p. 218, XI p. 115, XIV p. 211, XVI p. 181.

1. *Mucronella Ulmi* Peck in Rep. of the State botan. 1900, p. 154. — 577 Aculeis fasciculatis, 2-8 congestis, raro singulis, sæpe curvulis v. flexuosis, raro erectis, acutis, 2-3 mm. longis, griseis v. pallidis.

Hab. in ligno emortuo Ulmi, Westport, Amer. bor. — A *M. fasciculari* (Alb. et Schw.) Fr., aculeis griseis minoribus differt.

2. *Mucronella calva* (Alb. et Schw.) Fr. Hym. Europ. pag. 629. — Syll. VI, p. 513. — *Hydnum* Alb. et Schw. p. 271, t. X, f. 8.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Specimen polonicum habitu potius *Mucronellam aggregatam* Fr. sistit, nam aculei dense gregarii sunt, at quam in typica *Mucronella calva* breviores et tenuiores ita ut ad *Mucr. aggregatam* ducere nequeam. Sporæ hyalinæ, oblongæ, 4-6 \times 2-3; basidia clavata, 15 \times 4; hyphæ contextus aculeorum, 3-7 μ . Adest alter specimen quoque ad truncos Pini lectum, sed non in societate cum priore quod structura aculeorum, sporis etc. exacte concordat, sed aculei subiculo manifestissimo subtomentoso, ex hyphis irregularibus, tenuiter tunicatis, hic illic inflatis, 4-12 μ . latis conflato, insidentes,

quodque ad interim conjuncta relinquo. Forte in posterum distinguenda si formæ intermediæ non adsint (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 90).

3. *Mucronella Rickii* Oud. Bot. Centralbl. 1902, Beibl pag. 3 (Extr.). 578

— Subiculo nullo; aculeis albidis, vage distributis, solitariis vel numero 2-6-8 fasciculatis, primo erectis, strictis, postea decumbentibus, flexuosulis, cernuis v. hamatis, 3-5 mm. longis, subtilissimis, 100-120 μ . cr. subuliformibus; sporis ellipticis, hyalinis, inæquilateralibus, utrinque obtusis, continuis, eguttulatis, 7-9,5 \times 3,5-4,5; sporophoris bacilli- v. fusiformibus, sporâ longioribus, ut videtur, monosporis.

Hab. in caulibus Asparagi officinalis exsiccatis aliisque quiscuilibet et ramulis circa jacentibus, Valkenberg Hollandiæ.

4. *Mucronella fascicularis* (Alb. et Schw.) Fr. Hym. Europ. p. 629.

— Syll. VI, p. 512. — *Hydnum* Alb. et Schw. p. 269, t. 10, f. 9.

Hab. quoque ad ligna mucida Pini silvestris, in Polonia. — Sporæ hyalinæ, subglobosæ, 5-8 \times 4-6; basidia clavata, tetraspora, 25-30 \times 5-7; hyphæ contextus 5-12 μ . latæ, tenues. Specimen polonicum formam sistit aculeis minus fasciculatis, fere subgregariis, habitu ad *Clavariam Bresadolæ* Quél. accedens (BRESADOLA Fungi polonici in Ann. Mycol. 1903, p. 90).

KORDYANELLA v. Höhn. Ann. Mycol. 1904, p. 273 (Etym. a gen.

Kordyana, cui affinis) (absque diagnosi). — Pilei (verruculæ) hemisphærici, perexigui, sessiles. Basidia e nucleo centrali radiantia, subphialiformia, 2-3-raro 4-sterigmata. Sporæ oblongæ, continuæ, hyalinæ. Sec. auct. *Kordyanæ* affinis. — Forte haberi potest ut analogum sessile *Stilbi* sensu Juelii.

1. *Kordyanella austriaca* v. Höhn l. c. — Verruculis 30-60 μ . lat., 579

hemisphæricis vel depressis, hyalinis, intus brunneolis; basidiis e nucleo centrali celluloso radiatim divergentibus, hyalinis, 8-13 \times 2 deorsum incrassatulis, subphialiformibus, sterigmata 2-3, raro 4 gerentibus; sterigmatibus tenuissimis, acutis, subdivergentibus; speris copiosis oblongis v. breve cylindræis, 2,5-4 \times 1.

Hab. in trunco subputrescente Pini nigricantis, Wiener Wald pr. Vindobonam Austriæ.

Fam. 4. Thelephoraceæ Pers.

CRATERELLUS Fr. — Syll. VI p. 514, IX p. 218, XIV pag. 212, XVI p. 181.

1. **Craterellus Queletii** R. Ferry in Rev. Myc. 1892, p. 96, t CXXVI, 580
fig. 6. — Pileo campanulato, 3 cm. diam., submembranaceo, subumbonato, aurantiaco-fulvo; stipite solido, gracili flexuoso, 7 cm. longo, 5 cm. lato, duro, fibrilloso, concolori; lamellis rugiformibus, brevibus, vix ramosis, concoloribus; sporis ellipsoideis, pruniformibus 10 μ . hyalinis; carne alba; odore *Cantharelli cibarii*.

Hab. in silvis montuosis prope Bagnères-de-Luchon in montibus Pyrenæis.

2. **Craterellus taxophilus** C. Thom, Bot. Gaz. 1904, n. 3. 581

Hab. in foliis et ramulis dejectis putrescentibus *Taxi canadensis* Ithaca N. Y. Amer. bor. — Pusilla species vix 14-18 mm. alta.

THELEPHORA Ehr. — Syll. VI p. 521, IX pag. 220, XI pag. 115, XIV p. 212, XVI p. 182.

1. **Thelephora Martii** Sacc. et D. Sacc. *Th. albo-marginata* Mart. Ver- 582
such eines Comment. in Werk. Marcgrav und Piso. Münch. 1853 (Akad. Wiss.), nec Schw. ap. Berk. (1847). — Laxe gregaria, stipitata; pileo erecto cyathiformi, margine tenuiore albo subdentato; stipite pileoque intus zonato, pallide testaceo-fuscescente, hoc postremo extus pallidiore.

Hab. ad ligna putrida in silvis ad fl. Japurá in terra Amazonica, Jan. 1820. — Fungus 12-15 mm. alt., stipes basi orbiculari plana ligno affixus, teres, 2-4 mm. long., pileus cyathiformis, uno latere brevior. Affinis *Th. caperatae*.

2. **Thelephora vitellina** Plowr. in Journ. of Bot. 1901, p. 385. — 583
Pileo pallide flavo-vitellino, flabelliformi, sursum expanso, margine superiore rimoso, lateraliter parvulo incurvato; hymenio ruguloso, azono; stipite deorsum attenuato, basi dilatato; sporis ovoideis, 3 \approx 1-1.5.

Hab. ad ramos emortuos pineos inter muscos prope Boat of Garden N. B. Britanniae. — Pileus 10-18 mm. cr., 20-30 mm. alt. Affinis *T. Sowerbeyi*, sed colore, habitatione, sporis sat diversa.

3. *Thelephora Amigenatska* P. Henn. in Engl. Bot. Jahrb. 1901, 584 p. 42. — Syll. XVI, pag. 1116 (nomen). — Papyraceo-coriacea, stipitata, flabellata, infundibuliformis v. plurilobata, brunnea vel flavo-ochracea; pileo radiato-striato v. subplicato 2-5 cm. diam., margine subintegro v. fisso-lobato interdum proliferante; hymenio levi v. striato, pruinoso, subochraceo; stipite farcto, tereti v. compresso, simplici v. ramoso, flavo-brunneo v. fusco 1-5 cm. longo, levi v. ruguloso; sporis subglobosis v. ellipsoideis, 6-8 × 4-6 flavidulis.
- Hab.* ad truncos, Kamerun Afr.
4. *Thelephora Braunii* P. Henn. in Engl. Bot. Jahrb. 1901, p. 41. — 585 Syll. XVI, p. 1116 (nomen). — Coriacea, erecta, flavo-ferruginea, pruinosa ca. 4 cm, alta lataque; stipite late compresso, ca. 1,5 cm. longo, 5 mm. lato, sulcato, palmato-ramoso; ramis flabellatis apice palmatifidis vel cristatis, levibus obscurioribus; hymenio levi v. minute papillato, ferrugineo; sporis subglobosis 3,5-4, episporio levi, brunneo.
- Hab.* ad caudices, Kamerun Afr.
5. *Thelephora palmata* (Scop.) Fr. — Syll. VI, p. 529. — var. *americana* Peck Rep. of the Stat. Bot. 1899, p. 857. — 586 Ramis ultimis sæpe tenuibus, teretibus, acuminatis, apice albidis vel coloribus.
- Hab.* in America bor.
6. *Thelephora terrestris* Ehrh. Cf. n. 179. — Syll. VI, p. 536, *Auricularia caryophyllea* Bull. tab. 278 et tab. 483, f. 6, 7, *Thelephora caryophyllea* Pers. Obs. I, p. 36 (non Schaeff.), *Thelephora laciniata* Pers. Syn. pag. 567, *Thelephora intybacea* Fr. Hym. Eur. p. 635 (non Pers.). — Syll. VI, p. 536.
- Hab.* quoque ad terram, in Polonia. — Sporæ fusco-ferrugineæ, 8-12 × 7-9. Species hæc quoad formam variabilissima, modo stipitata, stipite centrali vel laterali, sæpe cæspitosa, pileis concentricis (= *Th. intybacea* Fr.), interdum sessilis, pileo laterali, dimidiato (= *Th. laciniata* Pers.). *Auriculariam caryophylleam* Bull. l. c. huc referendam certum est, prout ex iconibus evidentissime patet; *Thelephora caryophyllea* Pers. (non Schaeff.) etiam huc pertinet fide speciminum originalium; *Thelephora intybacea* Fr. (non Pers.) quoque nulla nota vere specificè differentiali distincta. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 91).
7. *Thelephora exigua* Peck in Rep. of the State Botanist, 1901, 587 p. 953. — Pileo tenuissimo, submembranaceo tubæformi vel in-

fundibuliformi, leviter radiatim fibroso-striato, margine parce lacero, pallide alutaceo 3-6 mm. lato; hymenio æquali vel substriato, pruinoso-pubescenti, brunneo 4-6 mm. longo; sporis ellipsoideis $4 \approx 2$.

Hab. ad terram, Westport Essex co., Amer. bor.

8. *Thelephora komabensis* P. Henn. F. Japonici IV, in Bot. Jahr. 588
bücher vol. XXXI, 1902, pag. 736. — Terrestris; pileo tenui, membranaceo, infundibuliformi v. flabellato, margine crenulato-inciso v. subintegro, tenui, pallido, levi glabroque, 1-2 cm. lato longoque; stipite centrali v. laterali, pileo confluyente, compresso, basi subbulboso-incrassato, pallido, pruinoso, 0,5-1 cm. longo, 1-1,5 mm. cr.; hymenio pallido, levi, glabro, vix striatulo, opaco; sporis subglobosis v. ovoideis, levibus, 3-5 \approx 3,5-4,5 hyalinis.

Hab. ad terram, Tokyo Japoniæ.

9. *Thelephora sparassoides* P. Henn. Fungi Indiæ orient. II in Hedw. 589
1901, pag. 324. — Caulicola, membranaceo-papyracea, confluens, cristata; pileo substipitato, flabellato, plicato, fisso, margine palmato-dentato, dentibus sæpe subulatis, cremeo, 5-7 mm. longo, 2-3 mm. lato; hymenio plicato, pallido; sporis subovoideis hyalinis levibus, 2-4 μ . diam.

Hab. in ramis emortuis Mussoorie, Arnigadh Indiæ orient.

10. *Thelephora pusiola* Pat. in Duss, Enum. champ. Guadel. 1903, 590
p. 12. — Laminæformis; laminis triangularibus, albis, duris, minutis, integris v. incis lobatis, glabris, levibus v. plicatis, subinde zonatis, in stipitem gracilem concolorem, glabrum, cylindraceum, lignosum tenuatis; hymenio infero, levi, brunneo; basidiis clavatis $25 \approx 10$, tetrasporis; sporis globoso-angulosis, incoloribus v. vix fuliginis, 6 μ . diam.; cystidiis nullis.

Hab. solitaria v. cæspitosa in lignis emortuis in silvis Bains-Jaunes Guadalupe (Duss). — Fungus 1 cm. alt., 5 mm. cr. — Var. *terrestris* Pat. l. c.: laminis angustioribus laciniatis, divergentibus, rigidis. Ad terram Matouba Guadalupe (Duss).

11. *Thelephora (Sebacina) ambigua* Bres. Fungi Polonici in Ann. My. 591
col. 1903, p. 116. — Late effusa, arcte adnata, gelatinosa, pallida; hymenio subtuberculato-undulato, exsiccando collapsio, levi; sporis hyalinis, obovatis vel subglobosis, 9-12 \approx 7-10; basidiis obovatis, 2-4-sterigmaticis, 15-10 \approx 10-12; hyphis contextus $1 \frac{1}{2}$ crassis.

Hab. sub cortice Quercus in Polonia. — Forma tuberculata ad *Tremellam* nutans.

CLADODERRIS Pers. — Syll. VI p. 547, IX p. 222, XVI p. 185.

1. **Cladoderris mussooriensis** P. Henn. Fungi Indiæ or. II in Hedw. 592
1901, pag. 324. — Imbricato-subcæspitosa; pileo tenue coriaceo, subflabellato, sulcato, plicato, azono, velutino, isabellino, margine integro v. repando undulatoque, basi attenuato, interdum substituto 1-4 cm. lato, 2-3 cm. longo; hymenio stramineo, ruguloso, costis subramosis, angustis radiantibus, haud verrucosis; sporis globosis v. subovoideis, hyalinis, echinato-asperatis 5-6 μ . diam.

Hab. ad terram Mussoorie, Arnigadh Indiæ orient.

2. **Cladoderris Pritzellii** P. Henn. in Hedw. 1903, p. (74). — Pileis 593
cæspitose imbricatis, apodis, basi decurrentibus, coriaceis, conchatis, sinuoso-crispatis, superne dense tomentosis, zonato-sulcatis, rugulosis, margine acutis, cinnamomeis, sinuosis, usque ad 8 cm. longis, 5 cm. latis; hymenio cinereo-ferrugineo, costis ramoso-radiantibus, sulcato-rugosis, verrucosis, velutinis; sporis subglobosis, intus punctulatis, hyalinis, levibus 3,5-4.

Hab. ad ligna emortua, pr. Kurauda, N. Queensland Australiæ (PRITZEL).

STEREUM Pers. — Syll. VI p. 551, IX p. 222, XI p. 119, XIV p. 215, XVI p. 186.

1. **Stereum Burtianum** Peck Rep. St. Bot. 1903, p. 21, t. 0, f. 30-34. 594
Pileo tenui, submembranaceo, coriaceo, fibroso, subinfundibuliformi, vulgo dimidiato, ob fibras radiantes rivuloso, pallido in cervinum v. rufescentem vergente, nitidulo; margine erecto, expanso v. recurvo, radiatim striato, decurrente pallide badio v. ochraceo-badio; stipite brevi, solido, minute tomentoso v. pruinoso-tomentoso, subcinereo; sporis minutis, hyalinis, levibus, globosis v. subglobosis, 1,5-2 μ . diam.

Hab. ad terram inter dumeta, Ulster co. Amer. bor. — Pileus 8-16 mm. lat.; stipes 4-6 mm. alt., circ. 1 mm. cr. Interdum individua bina v. plura coalescunt.

2. **Stereum cupulatum** Pat. in Duss. Enum. champ. Guadel. 1903, 595
p. 23. — Sparsum v. approximatum, orbiculare, e resupinato cupuliforme, puncto dorsali affixum, coriaceum, durum, rigidum, extus glabrum, azonum, brunneum, margine integro v. sinuato, acuto; hymenio pruinoso, levi, concavo, sordide cinereo, prope marginem rubescenti; trama compacta, umbrina; sporis cylindraceo-ovoideis, incoloribus, 6 \times 3; cystidiis nullis.

Hab. in cortice Pruni Dussii in silvis Bains-Jaunes Gua-

dalupa. — Fungus 6-8 mm. diam. Affinis *S. Coffearum*, sed cystidia nulla.

3. **Stereum versicolor** Fr. — Syll. fung. VI, p. 561. — var. *illyricum* G. de Beck in Zahlbruckn. Sched. ad Crypt. exs. Cent. IV, p. 446. — Pileis imbricatis late flabelliformibus, 4-7 cm. latis, antice rotundatis v. lobatis, basi angustatis et in stipitem brevissimum sæpe umboniformem attenuatis, tenuissimis chartaceo-membranaceis, ferrugineis demum versicoloribus, pulcre concentricè zonatis in margine acutissimo ochraceis, rarius purpurascentibus, zonis ferrugineis griseisve et breve strigoso-tomentosis adpresse pilosis purpureis; contextu sup. ferrugineo, sub hymenio pallido; hymenio levi, sicco rubiginoso-lutescente v. sæpius carneo; basidiis cylindraceis 37-50 μ . long.; cystidiis nullis; sporis oblongis 5 μ . l.

Hab. ad truncos Fagi silvaticæ in silvis subalpinis in M. Smolin Bosnia et Carniolæ.

4. **Stereum neocaledonicum** Har. et Pat. Journ. de Bot. 1903, p. 6. 597 — Eximie imbricatum, tenue, coriaceum, pileis numerosis e basi communi ortis, margine prolificantibus, papyraceis, cuneiformibus, antice rotundatis, lobatis, fuscis, velutinis, postice nigricantibus glabrescentibusque, undique crebre zonato-sulcatulis; hymenio concavo, levi, nitide fusco-cinereiscenti, non setuloso; contextu fusco radiante; hyphis laxiusculis, 4 μ . cr., in fasciculos facie tomentosos 50 μ . altos surrectis; cystidiis nullis; sporis non visis.

Hab. ad lignum mortuum, Mea, Nova Caledonia (BERNIER). — Pileus usque 15 cm. long., $\frac{1}{2}$ mm. cr., habitu fere *Thelephoræ adustæ* Lev., quæ cystidiis rigidis rufis ex hymenio 4-20 μ . excedentibus dignoscitur et tunc *Hymenochaete adusta* (Lév.) Pat. l. c. vocanda est.

5. **Stereum Huberianum** P. Henn. Fungi paraenses II in Hedw. 1902, p. 15. 598 — Mycelio membranaceo, pallido, effuso; pileis sparsis v. gregariis, subpapyraceo-coriaceis, sicco rigidis, flabellatis, sæpe inciso-lobatis v. subpalmatifidis, fulvis, longitudinaliter striatulis, levibus, glabris, $\frac{1}{2}$ -2 cm. longis latisque, in stirpem late compressam protractis v. sessilibus; hymenio paullo pallidiori, levi, glabro, subpruinoso; sporis globosis, levibus 3,5-4,5 hyalinis.

Hab. in ramulis, Pará Amer. austr.

6. **Stereum scalare** Karst. Fungi nov. Loennb. 1904, p. 9 (Finska Vetensk. Soc.). 599 — Pileis suberosis, rigidis, dimidiatis, dense scalarimbricatis, subinde connascentibus, pallescentibus, in spadiceum

leviter vergentibus tomentosis, parvis; hymenio pallido vel lutescenti-pallido, vulgo levi.

Hab. supra terram in regione Kuopioënsi Sibiriae, Aug. 1903 (O. A. F. LÖNNBOHM).

7. *Stereum ochroleucum* Fr. Hym. Europ. pag. 639, Brinkmann. Westf. getrockn. Pilze, Lief. I, n. 49. — Syll. VI, p. 566 — *Stereum sulphuratum* Berk. et Rav. North. Amer. Fungi n. 236. — Syll. VI, p. 566.

Hab. quoque ad truncos in Polonia. — Forma typica hujus speciei, rarissime in Europa obvia, optime a *Stereo hirsuto*, cui valde affinis, distincta, sc. pileo resupinato-effuso, margine tantum reflexo, e leniter sulphurato albido, hymenio avellaneo-isabellino vel avellaneo-fuscidulo, canescente; sporis hyalinis, cylindraceo-subcurvulis, $6-10 \times 2\frac{1}{2}-3\frac{1}{2}$; basidiis clavatis $40-45 \times 4-5$. Specimina, quæ in exsiccatis edita sunt, maxima ex parte, prout etiam specimina herbarii friesiani, a Friesio ipso tamen non determinata, ad *Stereum hirsutum* forma *resupinata* referenda sunt. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 91).

8. *Stereum subcostatum* Karsten in Hedw. 1881, p. 178. — Syll. VI, p. 570. *Stereum album* QuéL. Quelq. Esp. 1882. — Syll. VI, p. 571.

Hab. quoque ad ramos et truncos Alni, Betulæ, Salicis, Quercus, Coryli, in Polonia. — Sporæ hyalinae, cylindraceæ, uno latere depressæ, $5\frac{1}{2}-8 \times 2\frac{1}{2}-3\frac{1}{2}$; basidia clavata, $20-25 \times 4-6$; hyphæ tenuiter tunicatæ, septato-nodosæ, 3-6 μ . latæ. Bene evolutum hymenio gaudet laxo tuberculoso, tuberculis sæpe valde elongatis, more *Raduli penduli* Fr., cui valde accedit et a quo forte non specificè distinctum. Forma ad *Alnum* ex albo pallide ochroleuca, forma ad *Betulam*, *Corylum* etc. hymenio demum late auro-reo-incarnato. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 92).

9. *Stereum rufum* Fr. Epier. p. 553. — Syll. VI, p. 575 — *Thelephora* Fr. El. p. 127 (1828), *Thelephora rufo-marginata* Pers. Myc. Eur. I, pag. 124, *Tubercularia pezizoidea* Schw. (1831) Syn. Am. bor. p. 301, n. 3013, *Hypocrea Richardsonii* Vetestergren Micr. rar. n. 404, an Berk. et Mont.?

Hab. quoque ad ramos Populi tremulæ, in Polonia. — Specimina americana *Tuberculariæ pezizoideæ* a cl. prof. Ed. A. Burt missa cum speciminibus *Sterei rufi* Fr. exacte concordant (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 92).

10. *Stereum odoratum* Fr. Epier. p. 553. — Syll. VI, p. 587 — *Thelephora* Syst. Myc. I, p. 445, *Stereum alneum* Fr. Epier. p. 553. — Syll. VI, p. 587 — *Thelephora* Syst. Myc. I, p. 446, *Stereum suaveolens* Fr. Epier. p. 553, *Thelephora* El. I, p. 208.

Hab. quoque ad truncos Pini silvestris, Alni et Populi tremulæ, in Polonia. — Resupinatum et late effusum interdum margine subpileato, coriaceum, in annosis stratosum, ex hyphis rigidis, ramosis, $1-2\frac{1}{2}$, raro 3 crassis, conflatum, colore e pallido alutaceo vel pallide gilvo; sporis hyalinis, obovato-oblongis, $4\frac{1}{2}-6 \times 2-3$; basidiis 4-sporis $18-20 \times 4-5$; odore tantum in vegeto manifesto. Hucusque specimina ad *Alnos* obvia mihi, semper sterilia visa ideoque in Fung. Kmet. p. 44, n. 155, ex identitate structuræ, ad *Stereum alneum* Fr. speciem ad truncos *Salicis Capræ* vigentem duxi, quæ, cum sporis gaudeat globosis, diversa est, quæque contra ad *Corticium portentosum* Berk. probabiliter ducenda. Species Berkeleyana structura, forma et colore cum *Stereo odorato* Fr. concordat, sed, teste Burt in litteris, sporas habet globosas. Specimina ab amicis americanis mecum benevole communicata sterilia inveni. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 92).

11. *Stereum quercinum* Potter in Trans. Engl. Arbor. Soc. New 600
Castle-on-Tyne 1902, p. 1-8 (extr.) fig. 1-3 (Absque diagnosi). — Resupinatum, coriaceum, in rimis corticis nidulans, margine vix emergente, pallido griseo-brunneum, ambitu sæpe pallidiore; basidiis filiformibus apice clavato-truncatis; sterigmatibus subquaternis; sporis ellipsoideis, utrinque rotundatis, $8,5 \times 4,3$, hyalinis.

Hab. in cortice *Quercus Roboris*, cui morbum cancerosum affert, in Anglia variis locis. — Forte affine *St. frustuloso*.

HYMENOCHÆTE Lév. — Syll. VI p. 588, IX p. 227, XI p. 122, XIV p. 217, XVI p. 188.

1. *Hymenochaete fissu-lobata* P. Henn. F. Amaz. I p. 172 (Hedw. 1904) 601
— Pileis ramicolis, coriaceis, flabellatis, stipitatis v. subsessile confluentibus, ramosis, superne atrocinnamomeis, radiato-striatis rugosis vel sulcatis, margine ad medium fissu-lobatis, hymenio cinereo-ferrugineo, pruinoso-subsetuloso, setulis ca. $20 \times 3 \mu$, fuscis septatis vel ramosis; sporis... (non visis).

Hab. ad lianas viventes, Rio Juruá, Sao Jao Amazoniæ (ULE). — Forte aptius *Thelephoræ* adscribenda, tamen *Hym. formosæ* subsimilis.

2. *Hymenochaete crateriformis* P. Henn. F. Amaz. I p. 172 (Hedw. 602

1904). — Pileo coriaceo, regulariter infundibuliformi, castaneo velutino, obscurius zonato, margine tenui, pallidiori, integro vel crenulato, 5-7 cm. lato, 5-6 cm. longo; stipite centrali aequali tereti, lignoso, ferrugineo-tomentoso, basi discoideo, incrassato, 3-5 cm. longo, 4-5 mm. crasso; hymenio ferrugineo, velutino-setuloso, setulis filiformibus, flexuosis, simplicibus, apice obtusis, flavido-fusculis, $40-80 \approx 3-3\frac{1}{2}$; sporis non conspicuis.

Hab. ad truncos putrescentes Rio Madeira ad Marmellos Amazoniae (ULE). — Affinis *H. infundibuliformi*.

3. *Hymenochætæ ussanguensis* P. Henn. in Engl. Bot. Jahrb. 1901, 603 p. 255. — Sacc. Syll. XVI, p. 1117 (nomen). — Corticola, effusa, resupinata, cinnamomea, velutina, subiculo tenui, albido-byssino, setulis simplicibus v. subramosis, obtusiusculis, flavidis, $30-60 \approx 4-5$; sporis subglobosis, 6-8 μ . diam., episporio subfuscido, levi.

Hab. in ramis arboris indeterminatæ, in montibus, Kinga Africae orient.

4. *Hymenochætæ septobasidioides* P. Henn. F. Amaz. I p. 172 (Hedw. 604 1904). — Pileo longitudinaliter subresupinato effuso, pileis subliberis, tenue coriaceis vel membranaceis, subdimidiatis sæpius serialim confluentibus, atrocinnameis, concentrice sulcatis velutino-fibrosis, ca. 5 mm. longis, margine tenuibus, interdum pallidis; hymenio subcinereo, velutino-setuloso, setulis filiformibus, flexuosis, ramosis, ca. $10-20 \approx 2\frac{1}{2}-3\frac{1}{2}$; sporis subglobosis, hyalinis, levibus, $2-2\frac{1}{2}$ μ .

Hab. ad ramos Sapindaceæ ejusdam, Rio Jurua, Menino de Deus Amazoniae (ULE). — Hic *Septobasidio velutino*, hinc *Hymen. elegantissimæ* cognata.

5. *Hymenochætæ arida* (Karst.) — Sacc. Syll. IX, p. 228 — *Hymenochætella arida* Karst. Finl. Basidv. p. 428.

Hab. quoque ad truncos Alni et Betulæ, in Polonia. — Sporæ hyalinæ, subcylindraceæ, uno latere subdepressæ, $6-8 \approx 2-2\frac{3}{4}$; basidia clavata, $15-20 \approx 4-5$; setulæ cuspidatæ, $100-150 \approx 6-8$; hyphæ 3-4 μ . Cum speciminibus originalibus comparavi, nec sporas tantum $\frac{1}{2}-1\frac{1}{2}$ μ . latas, uti habet cl. Karsten, vidi. (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 93).

6. *Hymenochætæ fuliginosa* (Pers.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 93 non Lév. *Thelephora* Pers. Myc. Europ. I, p. 145. *Stereum fuliginosum* Fr. Hym. Eur. p. 645. — Syll. VI p. 594.

Hab. quoque ad ramos Pini silv., in Polonia. — Setulæ fulvæ, 80-110 μ . long., basi ventricosa, 8-9 μ . cr., 40-50 μ . pro-

minentes; basidia clavata; hyphæ 3-4 μ . crassæ. Sporas nondum vidi. Ab *Hymenochaete fuliginosa* Lév., sensu Berk., specie exotica, omnino diversa (Bres. l. c.).

CORTICIUM Fr. — Syll. VI p. 603, IX p. 230, XI p. 124, XIV p. 219, XVI p. 189.

1. **Corticium usambarense** (P. Henn.) Sacc. et D. Sacc., *Aleurodiscus* 605
usambarensis P. Henn. in Bot. Jahrb. 1904, p. 43. — Resupinato-subpezizoides, extus albidus subfibrillosus, margine evoluto; hymenio subceraceo, pallide roseo v. flavidulo, levi 0,5-2 cm. diam.; basidiis clavatis, intus grosse oleoso-roseo-guttulatis, 50-80 \times 15-25, plerumque 2-sterigmaticis; sporis oblonge ovoideis v. ellipsoideis, oleoso-guttulatis, 20-25 \times 11-16, episporio hyalino, granuloso.

Hab. in ramis emortuis, Bömule, Ost Usambara, Afr. orient. (ZIMMERMANN).

2. **Corticium dendriticum** P. Henn. Fungi costaricensis I in Hedw. 606
1902, p. 102. — Carnoso-ceraceum, pallide carneum, dendroideo-ramosum v. radiato-effusum, margine sicco reflexo, albo-villosulo; hymenio ceraceo, pruinoso, carneo, sicco rimoso; basidiis clavatis, 2-4-sterigmaticis, 20-28 \times 7-8; sporis subglobosis, subroseis, levibus, 4-5 μ . diam.

Hab. in truncis, San José de Costa Rica, Amer. centr.

3. **Corticium abnorme** P. Henn. F. Amaz. I, p. 186 (Hedw. 1904). 607
— Follicola, paginam inferiorem occupans, effusum, isabellinum, margine radiatim byssinum, hymenio verrucoso, verrucis hemisphaericis, ca. 1 mm. diam., contextu fibroso, hyphis hyalinis, hamato-cirratilis, ca. 2-2½ μ . crassis; sporis subglobosis, 1-guttulatis, 2½-3½ μ ., episporio granuloso, hyalino-flavidulo.

Hab. ad folia coriacea Myrtaceæ ejusdam, Rio Juruá Marary Amazoniæ (ULE). — Species quoad situm in foliis prædistincta, ob hyphas apice hamatas ad *Septobasidium* nutat.

4. **Corticium rubro-pallens** Schw. Syn. N. A. Fung. pag. 168 (sub *Thelephora*), *Corticium rubro-canum* Thüm. Bull. Torr. Bot. Club VI, p. 95, Myc. univ. n. 409. — Syll. VI, p. 632.

Hab. quoque ad ramos Alni, in Polonia. — Sporæ cylindraceo-curvulæ, hyalinæ, 5½-7½ \times 2-2½; basidia clavata, 20-25 \times 6; hyphæ conglutinatæ 2-3 μ . Specimen hic exhibitum juvenile, minus evolutum, sed vix dubie ad *Corticium rubro-pallens* Schw. ducendum. In speciminibus americanis a cl. Burt benevole mecum communicatis, sporæ 5½-6 \times 1½-2, basidia 30-35 \times 6 et hyphæ basales

receptaculi optime evolutæ 4-7 μ . crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 97).

5. **Corticium komabense** P. Henn. in Engl. Jahrb. 1902, XXXVI, 608 p. 38. — Erumpens, papyraceo-ceraceum tenue, orbiculare dein explanatum, confluens, 2-6 mm. diam., medio subplicato, margine elevato, tenui, levi; hymenio griseo-brunnescenti, pruinoso; basidiis clavatis, 15-18 \times 4-5, 4-sterigmaticis; sporis ovoideo-subglobosis, hyalinis, 3,5-4 \times 3-3,5.

Hab. ad ramos emortuos *Quercus glanduliferæ*, Komaba Japoniæ (P. SUZUKI).

6. **Corticium Torrendii** Bres. Myc. Lusitanici novi, in Atti. R. Acc. di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 131. — Late effusum, adnatum, crassum, membranaceo-subtomentosum, margine mox similari sublibero; hymenio pallido, ætate subfumoso, in vegeto laxè tuberculoso, sub lente pruinoso; sporis hyalinis, subglobosis, 8-10 \times 7-8,5; basidiis clavatis, 25-30 \times 6-7; hyphis vix distinctis, substantiam subamorpham efformantibus, 3-4 μ . latis.

Hab. ad ramos *Oleæ europææ* prope Setubal Lusitaniæ (TORREND!).

7. **Corticium Ulmi** Lasch Bot. Zeit. 1853. p. 235. — Syll. VI p. 618.

Hab. quoque ad truncos *Ulmi campestris* et *Betulæ* in Polonia. — Sporæ subglobosæ, hyalinæ, 5-7 \times 4½-6; basidia clavata, 20-25 \times 5-7; hyphæ irregulares, 4-5 μ . inferne usque ad 9 μ . crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 95).

8. **Corticium Zimmermanni** Sacc. et Syd. Syll. XVI, p. 117 (nomen), 610

Cortic. javanicum A. Zimm. in Centralbl. f. Bakter. Paras. 1901, VII, p. 103, f. A-C, nec *C. javanicum* (Henn.) Sacc. et Syd. — Membranaceum truncum ramosque subinde late ambiens, carneum vel flavidum, matrici hyphis mycelicis laxis adhærens; cystidiis nullis; basidiis clavatis, tetrasporis; sterigmatibus gracilibus, 4-6 μ . long.; sporis piriformibus, hyalinis, apiculatis, 9-12 \times 6-7 (in aqua mox germinantibus).

Hab. in truncis ramisque *Coffeæ arabicæ* et *C. libericæ*, quibus morbum, *Djamur upas* vulgo dictum, affert in ins. Java. — Species interdum nascitur in eadem insula, in *Thea*, *Bixa*, *Bœhmeria*.

9. **Corticium albo-ochraceum** Bres. Fungi Polonici in Ann. Myc. 1903, 611 p. 96. — Effusum, fibrilloso-byssinum, ochroleucum vel luride

ochraceum, ambitu fibrilloso-fimbriato; hymenio levi, subrimoso sub lente pruinato; sporis hyalinis, circulo interno fulvo, punctatis, subamygdaliformis, $5-6 \approx 3\frac{1}{2}-4$; basidiis clavatis, $20 \approx 3-4$; hyphis irregularibus, septatis, granuloso-farctis, $2-4 \mu$. crassis.

Hab. ad truncos Alni, in Polonia. — *Corticio ochroleuco* Bres. simillimum, sed structura diversum.

10. **Corticium geogenium** Bres. Fungi Polonici in Ann. Mycol. 1903, 612 p. 98. — Late et interrupte effusum, membranaceo-subflocculosum, ambitu subsimilari, e niveo pallescens; hymenio levi, haud rimosis; sporis hyalinis, obovatis, interdum uno latere subdepressis et 1-guttatis, $8-9 \approx 5-6$; basidiis clavatis, $25-30 \approx 6-7$; hyphis subhymenialibus, 4μ . cr., basalibus 6μ . crassis.

Hab. ad terram sabulosam, in Polonia. — Unam alteramve cellulam clavatam, vacuum, levem, prominentem, latitudinis basidiorum, observavi, sed vix cystidia crederem.

11. **Corticium terrigenum** Bres. Fungi Polonici in Ann. Mycol. 1903, 613 p. 98. — Interrupte effusum, flocculoso-submembranaceum, ambitu furfuraceo, album, pallens; hymenio subundulato, irregulari sporis hyalinis, oblongis v. frequentius fusiformibus hilariterque depressis, $14-15 \approx 5-6$; basidiis clavatis, $30-35 \approx 9$, sterigmatibus usque ad 12μ . longis; hyphis irregularibus, $6-10 \mu$. crassis.

Hab. ad terram, in Polonia.

12. **Corticium niveum** Bres. Fungi Polonici in Ann. Mycol. 1903, 614 pag. 98. — Late effusum, flocculoso-submembranaceum, ambitu subsimilari, e niveo pallido-subcremeum; hymenio levi, in sicco flocculoso-fatisciente; sporis hyalinis, oblongis, $7-8 \approx 3-3\frac{1}{2}$; basidiis clavatis, $24-26 \approx 5-6$; hyphis $2\frac{1}{2}-4 \mu$. crassis, septato-nodosis.

Hab. ad ligna Betulæ, in Polonia. — Habitu et colore *Corticio sero* Pers. simillimum, sed sporis præcipue bene diversum.

13. **Corticium lactescens** Berk. Outl. p. 274. — Syll. VI, p. 618.

Hab. ad truncos Ulmi campestris, in Polonia. — Sporæ hyalino-stramineæ, subgloboso-ellipticæ, $6-8 \approx 4\frac{1}{2}-6$, granuloso-farctæ; basidia clavata, $40-45 \approx 6-8$; vasa lactifera subcystidiformia, vix prominula, apice attenuata; hyphæ septato-nodosæ, $3-4 \mu$. crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 95).

14. **Corticium levè** Pers. Disp. p. 30, nec Fr., *Thelephora laxa* Pers. Myc. Eur. I, p. 143, *Corticium evolvens* Fr. Epicr. pag. 557. — Syll. VI, p. 604.

Hab. quoque ad truncos Tiliæ, Salicis, Ulmi, Coryli et Pini, in Polonia. — Species hæc variabilissima, tenuis vel crassa,

levis v. tuberculosa, interdum quoque subpileata. *Thelephora papyracea* Schrad. Spic. pag. 187 ab auctoribus, duce Persoonio, huc ducta, absque dubio est forma juvenilis *Merulii Corii* Fr. *Corticium leve* Fr., e speciminibus in Museo Kewensi asservatis, est *Peniophoræ* sp., de qua infra (Bresadola, Fungi polonici, in Ann. Mycol. 1903, pag. 94).

15. **Corticium subleve** Bres. Fungi Polonici in Ann. Mycol. 1903, 615 p. 95. — Late effusum, membranaceum, subsecedens, *pallidum* v. leviter *carneolum*, ambitu fimbriato-subfibrilloso; hymenium e tuberculoso levi, vix rimoso; sporis hyalinis, obovatis, $3\frac{1}{2}$ - $4\frac{1}{2}$ \approx $2\frac{1}{2}$ - $2\frac{3}{4}$; basidiis clavatis, 15-16 \approx 4; hyphis contextus septato-nodosis, tenuibus, 2-3 μ . crassis.

Hab. ad truncos Alni, in Polonia. — Habitu ad *Corticium leve* accedit.

16. **Corticium pruinaum** Bres. Fungi Polonici in Ann. Mycol. 1903, 616 p. 98. — Late effusum, byssaceo-tomentosum, molle, laxo contextum, ambitu subsimilari, demum secedenti-revolutum, ex albido mox luride cremeum; hymenio exsiccando flocculoso-fatiscente; sporis hyalinis, amygdaliformibus, 5-7 \approx 3 - $3\frac{1}{2}$; basidiis clavatis, 18 \approx 6-7; hyphis subhymenialibus, 7-8 μ ., basalibus usque ad 15 μ . crassis, septatis, vix nodosis.

Hab. ad ramos corticatos Frangulæ Alni, in Polonia. — Species valde *Corticio isabellino* (Schroeter) Eichler affinis, sed forma sporarum, colore et hyphis subhymenialibus latoribus differt.

17. **Corticium frustulosum** Bres. Fungi polonici in Ann. Mycol. 1903, 617 p. 98. — Late effusum, flocculoso-submembranaceum, molle, ambitu pruinato, ex albido luride alutaceo-subumbrinum; hymenio levi, subpruinoso, minute rimoso; sporis hyalinis, subglobosis, majusculè apiculatis, 7-10 \approx 7-8; basidiis clavatis, 20-25 \approx 10-11, 2-4-sterigmaticis, sterigmatibus usque ad 15 μ . longis; hyphis principalibus usque ad 10 μ . crassis et fuscidulis.

Hab. sub cortice Populi tremulæ, in Polonia.

18. **Corticium tephroleucum** Bres. in P. Strasser, Zweiter Nachtr. zur Pilzflora des Sonntagberges in Verhandl. d. k. k. zool.-bot. Ges. in Wien 1902, p. 430. — Late effusum, adglutinatum, ceraceum, ambitu e pruinato mox similari è griseo-pallidum vel ex albo cremeum; hymenio laxo subtuberculoso, ætate rimoso; sporis obovatis, 9-12,5 \approx 6-8,5 hyalinis; basidiis clavatis, 20-25 \approx 7-8; hyphis contextus mox grumoso-collapsis, 4-5 μ . crassis.

Hab. ad corticem truncorum Piri communis, Sonntagsberg,

Austria bor. — Sub duabus formis obvium. Prima e grisea vel griseo-subargillacea pallescens, secunda ex alba cremea. Structura et cetera omnia identica. Forte hæc diversitas e tempore vegetationis pendet, nam forma grisea mense Januario lecta et forma alba mense Febuario.

19. *Corticium polygonium* Pers. Disp. p. 30. — Syll. VI p. 627.

Hab. quoque ad ramos Populi tremulæ, in Polonia. — Sporæ cylindraceo-curvulæ, hyalinæ, $8-12 \times 3-4$; basidia clavata, $30-35 \times 6-7$; inter basidia et contextum adsunt cellulæ obverse obovatae, vacuæ, tenuiter tunicatæ, numquam prominentes, sed semper immersæ, $40-50 \times 15-20$ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 97).

20. *Corticium cinereo-carneum* P. Henn. Fg. S. Paul. III, pag. 197 619 (Hedw. 1904). — Effusum, tenue crustaceo-membranaceum, cinereo-carneum, pruinsum, margine conformi, contextu fusco-subvino, fimbriato; basidiis clavatis, $15-20 \times 8-10$; sporis globosis, levibus, hyalinis, $8-10 \mu$.

Hab. ad truncos, Alto da Serra Iponema, S. Paulo Brasilæ.

21. *Corticium isabellinum* (Schroeter) Eichler. ap. Bres. Fungi Pol. 620 in Ann. Mycol. 1903, p. 97, *Hypochnus isabellinus* Schroeter Pilz. Schl. I, p. 417, nec Fries. — Effusum, isabellinum, tenue; sporis hyalinis, obovatis, $4\frac{1}{2}-6 \times 3-3\frac{1}{2}$; basidiis clavatis, $18-20 \times 4-5$, hyphis subhymenialibus $3-5 \mu$; hyphis basalibus, usque ad 15μ . cr.

Hab. quoque ad ramos Coryli, in Polonia.

22. *Corticium alutaceum* (Schr.) Bres. Fungi Kmet. pag. 46. Ita 621 vocandum *Corticium radiosum* Fr. Epicr. pag. 560. — Syll. VI, pag. 611.

Hab. quoque ad truncos Pini silvestris et ad ligna Betulæ. — var. *molle* (Karst.) Bres. l. infra cit., *Corticium granulatum* var. *molle* Karsten Hattsv. II, p. 147. Ad truncos Pini silv., etiam in Polonia. Hæc varietas meo sensu ad *Corticium alutaceum* potius ducenda, a quo differt sporis et hyphis aliquantum majoribus (Bresadola, Fungi polonici in Ann. Mycol. 1903, pag. 94).

23. *Corticium sulphureum* Pers. Obs. I, p. 38, nec Fr.

Hab. quoque ad ligna Quercus, in Polonia. — Sporæ hyalinæ, subglobosæ, asperulæ, $4-5 \times 3-4$; basidia clavata, $16-20 \times 6-7$. Meo sensu *Corticium fumosum* Fr. et *Phlebia vaga* Fr. (cfr. Syll. VI p. 613 et 698) haud specificè sunt distincta (Bresadola, Fungi Polonici, in Ann. Mycol. 1903, p. 96).

24. *Corticium atrovirens* Fr. Epicr. p. 562 — Syll. VI p. 614. — *Thelephora* Fr. El. I, p. 202, *Corticium cærulescens* Karst. Hattsv. II, p. 154, *Hypochnus chalybæus* Schroet. (an Pers.?) Fl. Schl. I, pag. 416.

Hab. quoque ad truncos putridos Alni glutinosæ, in Polonia. — Sporæ globosæ, 3 μ . diam.; basidia clavata, 15-20 \times 4; hyphæ septato-nodosæ, 2-3 μ . Color luride cæruleus, sæpe pruina flavo-viridi conspersus (Bresadola, Fungi Polonici, in Ann. Mycol. 1903, p. 96).

25. *Corticium botryosum* Bres. Fungi Polonici in Ann. Mycol. 1903, 622 pag. 99. — Late effusum, flocculosum, ambitu subsimilari, demum secedenti subrevoluto, album, pallescens; hymenium lacunoso-pulverulento; sporis hyalinis, fusoideo-ventricosis, utrinque apiculatis, 7-9 \times 4; basidiis clavatis, caespitose aggregatis, 4-6-sterigmatidis, 20-25 \times 8-10; hyphis septatis, sæpe ad septa nodosis, 7-9 μ . crassis.

Hab. ad ligna Pini, in Polonia. — A *Corticio fusisporo* (Schröt.) optime distinctum.

26. *Corticium Eichlerianum* Bres. Fungi Polonici in Ann. Mycol. 1903, 623 pag. 95. — Effusum, membranaceum, subsecedens, ex albido pallide subisabellinum v. subcarneolum, ambitu pruinato-subfimbriato; hymenio levi, haud rimoso; sporis hyalinis, cylindraceo-curvulis, 6-8 \times 2 $\frac{1}{2}$ -3 $\frac{1}{4}$; basidiis clavatis, 30-35 \times 7-8, sterigmatibus usque ad 8 μ . longis; hyphis crasse tunicatis, 4-6, inferne, 8 μ . crassis.

Hab. ad ramos Quercus, in Polonia. — A *Corticio sublevi* habitu non distinguendum.

27. *Corticium chartaceum* Pat. in Duss Enum. Champ. Guadel. 1903, 624 p. 19. — Resupinatum, late effusum, tenue, coriaceo-membranaceum, glauco-cinereum, sub vitro pruinatum, subpellucidum, margine similari, superficie continua, levi, trama alba, dura, 60-100 μ . cr.; cystidiis emergentibus, 30-50 \times 12, copiosis, acutis, incoloribus, parte libera aspero-incrustatis; sporis incoloribus, ovoideo-oblongis, 7 \times 4.

Hab. ad truncos putres Simarubæ amaræ, in stagno Walkanaers Guadalupa. — *C. giganteo* subaffine.

28. *Corticium lætum* (Karst.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 94, *Hyphoderma lætum* Karst. Revue Myc. 1889, Sacc. Syll. X, p. 530, *Corticium hypnophilum* Karst. Rev. Myc. 1890.

Hab. quoque ad truncos Alni et Coryli, in Polonia. — Sporæ oblongo-obovatæ, interdum uno latere subdepressæ, hyalinæ, 10-

14 \approx 6-8; basidia clavata, 4-sterigmatica, 35-50 \approx 7-12; hyphæ contextus septatæ, haud nodosæ, irregulares, 4-10 μ . crassæ. Cum Speciminibus a cl. Karsten benevole missis comparavi, nec differentiam inveni. Forte ad *Corticium auroram* Berk., mihi ignotum, ducendum (Bres. l. c.).

29. *Corticium deflectens* Karst. Krit. Ofv. p. 414, *Grandinia deflectens* K. Hattsv. II, p. 239. — Syll. VI, p. 503.

Hab. quoque ad ramos et truncos Salicis et Frangulæ Alni, in Polonia. — Sporæ oblongæ, hyalinae, 6-8 \approx 2 $\frac{1}{2}$ -3; basidia clavata, 25 \approx 5-6; hyphæ 2-4 μ . Cum speciminibus authenticis comparavi, in quibus sporas ut supra inveni, nec prout habet Karsten l. c. (Bresadola, Fungi polonici in Ann. Mycol. 1903, pag. 95).

30. *Corticium Queletii* Bres in Nuovo G. Bot. Ital. 1901, pag. 170, 625
Corticium calceum Quél. olim, non in Fl. Myc., nec Pers., nec Fr. — Ex orbiculari effuso-confluens, membranaceo-molle, adnatum, margine primitus subfimbriato dein similari et libero, ex albo pallide crustulinum; hymenio subruguloso, ætate late rimoso; sporis oblongis, 8-9 \approx 3-4; basidiis clavatis, 35-40 \approx 5-6; hyphis contextus septato-nodosis, tenuiter tunicatis, 3-4,5 μ cr.

Hab. in ramis corticatis Abietis pectinatæ in Jura (QUÉLET), Helvetia pr. Neuchâtel (MORTIER) et Vallombrosa Etruriæ (CAVARA).

31. *Corticium acerinum* Pers. var. *dryinum* Pers. Syn. p. 581 (sub 626
Thelephora) *Stereum acerinum* (Pers.) Fr. — Syll. VI p. 687.

Hab. quoque ad corticem Æsculi Hippocastani, in Polonia. — Sporæ 11-14 \approx 6-8. — var. *macrospora* Bres. Fungi Polonici, in Ann. Mycol. 1903, pag. 96. Ad ramos Corni sanguineæ, in Polonia. Sporæ ovato-oblongæ, 15-20 \approx 6-9; basidia clavata, 70-100 \approx 10-12; paraphyses 4-6 μ . crassæ; hyphæ 3-4 μ . Species hæc quoad dimensionem sporarum et basidiorum variabilissima!

32. *Corticium centrifugum* (Lév.) Bres. Fungi Polonici in Ann. Myc. 627
1903, pag. 96, *Rhizoctonia centrifuga* Lév. Ann. Sc. Nat. 1843, pag. 225.

Hab. ad truncos Betulæ, Populi et Pini, in Polonia. — Sporæ hyalinae, oblongæ, 5-7 \approx 3-4; basidia clavata, 20-25 \approx 5-6; hyphæ tenues, septato-nodosæ, 3-5 μ . Sclerotia non vidi. A *Cort. arachnoideo* Berk. notis micrologicis distinctum (Bres. l. c.).

33. *Corticium Typhæ* (Pers.) Fuckel Symb. pag. 27, *Athelia Typhæ*

Pers. Myc. Eur. I, pag. 84, *Athelia scirpina* Thüm. Myc. Univ. n. 1505! *Corticium scirpinum* Winter Pilze p. 340.

Hab. ad culmos et folia *Scirpi silvatici* et *Caricis* sp., in Polonia. — Sporæ hyalinæ, oblongæ, subnaviculares, $18-27 \approx 7-8$; basidia clavata, 2 4 sterigmatica, $25-35 \approx 8-10$; hyphæ irregulares, 2-5 μ . latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 97).

34. *Corticium muscicola* Bres. Fungi Polonici in Ann. Mycol. 1903, 628 p. 96. — Interrupte effusum, membranaceum, ex albido luride alutaceum, ambitu fibrilloso-byssinum; hymenio e muscis undulato, secus levi, vix rimoso; sporis hyalinis, obovatis, $4-4\frac{1}{2} \approx 2-2\frac{1}{2}$ guttulatis; basidiis clavatis, $15-18 \approx 4-5$; hyphis subhymenialibus tenuibus, 3-4 μ . contextus rigidis, 5-8 μ . sæpe ad septa nodosis.

Hab. ad muscos, in Polonia.

35. *Corticium chlamydosporium* Burt Ann. Rep. N. Y. State Mus. 629 1901, n. 54, p. 154 (Diagnosis l. c. desideratur).

PENIOPHORA Cooke — Syll. VI pag. 640, IX p. 237, XI p. 128, XIV p. 223, XVI p. 193. — Cfr. *Kneiffia*, infra.

1. *Peniophora amaniensis* P. Henn. in Bot. Jahrb. 1904, p. 43. — 630 Crustaceo-effusa, subcarnescens, pallide flavida, ambitu pallido byssacea; hymenio minute verrucoso; cystidiis sparsis, subulatis, granuloso-verrucosis, hyalinis, apice obtusis, $20-40 \approx 5-8$; basidiis subclavatis, $10-14 \approx 3,5$; sporis ovoideis vel ellipsoideis, hyalinis, 1-2-guttulatis, $3,5-4,5 \approx 2,5-3$.

Hab. in silvis sempervirentibus supra Amani, Ost Usambara Africæ orient. (ENGLER).

2. *Peniophora Coffeæ* Zimm. in Centr. f. Bakter. Paras. 1901, n. 3, 631 pag. 102. — Adpressa, tenuis, subcoriacea, usque 5 mm. diam., margine radiato-fimbriato, læte flavido; hymenio rubiginoso-brunneo, velutino; cystidiis solitariis, conico-oblongatis, supra basidia eminentibus, crasse tunicatis, apice acutis, $80-95 \approx 8$, rufis; basidiis tetrasporis; sterigmatibus 3 μ . longis; sporis hyalinis, levibus, globosis, 5-6 μ . diam.

Hab. in cortice ramorum adhuc vivorum *Coffeæ arabicæ*, cui innocua videtur, in insula Java.

3. *Peniophora disciformis* (DC.) Cooke — Syll. VI pag. 642 — var. 632 *borealis* Peck, Harrim Alaska Exped. Crypt. pag. 43. — A typo differt colore rubescente; cystidiis dimidio minoribus, disco pruinulo v. pulvereo; sporis

Hab. ad terram, Yakutat Bay, Alaska (TRELEASE). — Ubi specimen fertilia, forte species nova demonstrabitur.

4. *Peniophora crassa* Burt, Ann. Rep. N. Y. State Mus n. 54, 1901, 633 p. 155 (Diagnosis l. c. desideratur).

KNEIFFIA Fr. Epicr. p. 529 (1838), *Peniophora* Cooke in Grev. VIII, p. 20 (1879) — Syll. VI p. 510, IX p. 216, XI pag. 114, XIV p. 11 et 210. Cfr. *Peniophora*, supra. — Genus *Kneiffia* Fr. ad typum *Kneiffia setigeræ* constitutum, a genere *Peniophora* Cooke non distinguendum. Nota aliqua exhibita erronea, prout basidia monospora, nam in genuina quoque *Kn. setigera* basidia sunt tetraspora. De cetero est *Corticium* cystidiis præditum. — Sensu Auctorum hoc genus heterogeneum, nempe *Peniophoræ* sp. et *Odonotia* sp. amplexens, contra sensum Auctoris (Fries) qui clare dicit: «hymenium granulis verrucisque destitutum, sed tantum setis rigidis strigoso-exasperatum (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 99).

1. *Kneiffia setigera* Fr. Epicr. pag. 529. — Syll. VI p. 510 et IX p. 218 — Bres. Hym. Hung. Kmetiani p. 40.

Hab. quoque ad truncos Alni, Betulæ, Populi tremulæ et Salicis Capræ, in Polonia. — Forma consueta omnino *Corticiorum*; resupinata late effusa, ceraceo-membranacea, ambitu pruinato, primitus alba, dein alutaceo-crustulina; hymenium generatim leve, rarius tuberculosum, demum rimosum; cystidiis velutino-exasperatum; sporæ hyalinæ, cylindræ, subcompressæ, $10-15 \times 4-4\frac{1}{2}$; basidia clavata, tetraspora, $30-35 \times 6-7$; cystidia sparsa, rarissime subfasciculata, cylindræ v. subfusioidea, tenuiter tunicata, tuberculoso-furfuraceo-incrustata, interdum septata et ad septa sæpe nodosa, $120-180 \times 8-12$ vel ultra; hyphæ contextus $4-6 \mu$. latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 99).

2. *Kneiffia tomentella* Bres. Fungi Polonici, in Ann. Mycol. 1903, 634 pag. 103. — Late et interrupte effusa, mollis, tomentosula, laxè contexta, ambitu arachnoideo, ex albida alutacea vel demum subochracea; hymenio e sublacunoso levi; sporis hyalinis vel substramineis, 1-guttulatis, obovatis, $3\frac{1}{2}-4\frac{1}{2} \times 2\frac{1}{2}-3$; basidiis clavatis, $20-25 \times 4-5$; cystidiis subfusioideis, apice obtuso, tenuiter tunicatis, apice laxè granuloso-incrustatis, mox glabris, interdum septatodosis, $70-90 \times 4-5$, parte prominula $30-40 \mu$.; hyphis contextus, $2-3 \mu$. cr.

Hab. ad folia coacervata et ligna mucida, in Polonia.

3. **Kneiffia subabscondita** Bres. Fungi Polonici in Ann. Mycol. 1903, 635 p. 101, *Corticium confluens* Fr. var. *subcalceum* Karst. in Revue Myc Avril 1888 — Syll. VI p. 627 et IX p. 232 — *Corticium leve* Pers. var. *subcalceum* Karst. Krit. Ofv. 1892, pag. 51? — Late effusa, adglutinata, submembranacea, ambitu radiato v. pruinato, pallida, subalutacea; hymenio sublevi vel colliculoso-subtuberculoso; sporis hyalinis, oblongis, $3\frac{1}{2}$ - $4\frac{1}{2}$ \approx 2 - $2\frac{1}{2}$; basidiis clavatis, 20-25 \times 4-5; cystidiis raris, cylindraceis, apice obtuso, subattenuato, basi pedicellatis, crassiuscule tunicatis, granuloso-incrustatis, ut plurimum immersis, rarius usque ad 20 μ . emergentibus, 60-75 \approx 10-15; hyphis $2\frac{1}{2}$ -4 μ . crassis.

Hab. ad truncos Betulæ, Alni et Pini silv., in Polonia. — Habitu et colore *Corticio confluenti* Fr. simillima, a quo notis micrologicis tantum tute distinguitur. Cl. Karsten locis citatis fungum describit, qui, fide speciminum mecum benevole communicatorum, cum nostro optime convenit; cystidia quoque adsunt etiamsi in diagnosi Karsteniana haud sint memorata; at sporas frustra quæsi, quas cum Karsten globosas, 9 μ . diam. dicat, quod a fungo nostro est alienum, ejus cum specie Karstenii identitatem absolutam asserere nequeo et ideo ceu novum propono (Bres. l. c.).

4. **Kneiffia polonensis** Bres. Fungi Polonici in Ann. Mycol. 1903, 63; p. 102. — Late effusa, tomentosa, ambitu similari, nivea, demum crenea; hymenio scruposo, velutino; sporis hyalinis, oblongis, 6-9 \approx 4-5; basidiis clavatis, tetrasporis, 30-35 \times 6-7; cystidiis subcylindraceis, tenuiter tunicatis, parte prominula granuloso-incrustata, septata, ad septa interdum nodosa, 200-230 \approx 8-9, circiter 80-90 μ . emergentibus; hyphis basidiophoris 5-6 μ . cystidiophoris 6-8 μ . latis, septato-nodosis.

Hab. ad truncos Quercus et Ulmi, in Polonia.

5. **Kneiffia Frangulæ** Bres. Fungi Polonici in Ann. Mycol. 1903, 637 p. 100. — Late effusa, membranaceo-mollis, crassa, subtus fibrillosa, ambitu fimbriato, ex albida cremeo-subalutacea; hymenio levi, interdum subundulato, haud rimoso; sporis hyalinis, oblongis, hilariter depressis, 7-9 \approx 4-5; basidiis clavatis, 25-30 \times 5-6; cystidiis fusoides, glabris, 30-45 \approx 6-8 parum prominulis, raro usque ad 15 μ .; hyphis subhymenialibus tenuibus, irregularibus, 3-4 μ .; hyphis basalibus rigidiusculis, regularibus, horizontalibus, septato-nodosis, 3-4 μ . cr.

Hab. ad ramos Frangulæ Alni, in Polonia. — Habitu videtur prorsus *Corticium leve* Pers. f. *pallida* (= *Thel. laxa* Pers.).

6. *Kneiffia farinosa* Bres. Fungi Polonici in Ann. Myc. 1903, p. 105. 638

— Late effusa e farinosa submembranacea, membranula tenui, laxa contexta et demum separabili, ambitu pruinato, ex alba cremea; hymenio sublevi, furfurello; sporis hyalinis, subglobosis vel subellipticis, $7-11 \approx 5-7\frac{1}{2}$; basidiis clavatis, $30-35 \approx 7-8$; cystidiis subcylindraceutis, apice obtuso, subattenuato, crasse tunicatis, granuloso-incrustatis, glabrescentibus, $75-90 \approx 7-12$; hyphis contextus, $2\frac{1}{2}-4\frac{1}{2}$ μ . crassis.

Hab. ad ramos Salicis, Ulmi etc., in Polonia.

7. *Kneiffia clavigera* Bres. Fungi Polonici in Ann. Myc. 1903, p. 103. 639

— Late effusa, submembranacea, ambitu pruinato, ex albida cremeo-subalutacea; hymenio in vegeto subtuberculoso, in sicco levi; sporis hyalinis, oblongis, $9-10 \approx 5-6$; basidiis clavatis, $35-40 \approx 6-7$; cystidiis clavatis vel clavato-subcapitatis, tenuiter tunicatis, glabris, $60-75 \approx 14-17$; parte prominula, $20-24$ μ .; hyphis contextus $4-6$ μ . cr.

Hab. ad lignum Populi moniliferæ, in Polonia.

8. *Kneiffia avellanea* Bres. Fungi Polonici in Ann. Myc. 1903, p. 102. 640

— Late effusa, tenuis, ceraceo-rigescens, adglutinata, ex avellanea fuscidula, ambitu pruinato, albo; hymenio e cystidiis sub lente velutino, haud rimoso; sporis hyalinis, cylindraceuto-curvulis, $7-8 \approx 2-2\frac{1}{2}$; basidiis clavatis, $18-20 \approx 4-5$; cystidiis fusoides-cuspidatis crasse tunicatis, furfuraceuto-incrustatis, glabrescentibus, $75-100 \approx 9-12$; hyphis conglutinatiss, $3-4$ μ . crassis.

Hab. ad ramos Ulmi campestris, in Polonia. — *Peniophora cinerea* Fr. proxima, sed præcipue colore et cystidiis multo majoribus distincta.

9. *Kneiffia carneola* Bres. Fungi Polonici, in Ann. Mycol. 1903, 641

p. 104. — Late et interrupte effusa, flocculosa, ambitu furfuraceuto, pallide et luride incarnata; hymenio velutino, haud rimoso; sporis hyalinis, subamygdaliformibus, apiculatis et hilariter depressis, $6-8 \approx 4-4\frac{1}{2}$, raro $9-10 \approx 5$; basidiis clavatis, $20-25 \approx 5-6$, 4-sterigmaticis, sterigmatibus $4-6$ μ . longis; cystidiis raris, conico-cuspidatis, basi ventricosis, e ruguloso-subincrustatis mox levibus, $90-100 \approx 8-9$; hyphis irregularibus, mollibus, septatis, raro nodosis $3-5$ μ . cr.

Hab. ad ramos Pini silvestris, in Polonia. — Specimen parum diversum habuit cl. Bres. quoque a Suecia a cl. Romell.

10. *Kneiffia velutina* (De C.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 100, *Thelephora* De C. Fl. Fr. VI, p. 33, *Xerocarpus*

alneus Karsten Hattsv. II, p. 137 pr. p.. *Peniophora velutina* (DC.) Cooke et *Peniophora Karstenii* Massee Monogr. of Thel. p. 153. — Syll. VI, p. 644 et IX, p. 238.

Hab. quoque ad truncos *Quercus*, *Tilia*, *Coryli*, *Populi* et *Pini* in Polonia. — In vegeto color hujus speciei sæpe pallidus vel cremeo-gilvidus, sed in sicco semper carneus fit. *Peniophora Karstenii* est forma pallidior ambitu subsimilari vel minus strigoso. Specimina a Karsten mecum benevole communicata ex parte huc et ex parte ad *Stereum alneum* Fr. genuinum spectant (Bresadola, l. c.).

11. *Kneiffia tenuis* (Pat.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 105, *Corticium tenue* Patouillard in Revue Myc. 1885, p. 182. — Syll. VI, p. 632.

Hab. ad ramos *Coryli*, in Polonia. — Sporæ cylindræ, $8-9 \approx 4-4\frac{1}{2}$; basidia clavata, $30-35 \approx 6-7$; cystidia cylindræ, tenuiter tunicata, apice tuberculoso-incrustata more cystidiorum *Inocybarum*, $70-75 \approx 9-12$; hyphæ $3-5 \mu$. crassæ. *Kneiffia setigeræ* forte nimis affinis.

12. *Kneiffia subsulphurea* (Karsten) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 104, *Corticium subsulphureum* Karsten Symb. VIII, p. 12. — Syll. VI, p. 632.

Hab. quoque ad ligna *Pini silvestris*, in Polonia. — Sporæ hyalinæ vel stramineæ, cylindræ-subcurvulæ, $7-9 \approx 2-3$; basidia clavata, $20-25 \approx 5-6$; cystidia rara, subfusoides-cuspidata, sæpe sinuosa, tenuiter tunicata, laxè superne granuloso-scabra, valde prominula, $6-8 \mu$. crassa; hyphæ subhymeniales $3-4 \mu$.; basales usque 6μ . latæ. Cum speciminibus authenticis a cl. Karsten habitis comparavi. (Bres. l. c.).

13. *Kneiffia subalutacea* (Karsten) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 104, *Corticium subalutaceum* Karsten Symb. Myc. Fenn. X, p. 65. — Syll. VI, p. 636.

Hab. ad ligna *Pini silvestris*, in Polonia. — Sporæ hyalinæ, cylindræo-curvulæ, $6-8 \approx 1\frac{1}{2}$; basidia clavata, $20-24 \approx 4$; cystidia cylindræa, apice obtuso, levia, tenuiter tunicata, $70-100 \approx 5-6$; hyphæ $2-3 \mu$. *Kneiffia glebulosæ* Bres. proxima. Cum speciminibus authenticis *Corticii subalutacei* K. comparavi. Etiam e Suecia habui a cl. L. Romell (n. 845).

14. *Kneiffia serialis* (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 101, *Corticium* Fr. Dpicer. p. 563. — Syll. VI, p. 624, *Xero-carpus cacao* Karst. Hedw. 1890, p. 271.

Hab. ad ligna et truncos Pini silvestris, in Polonia. — Sporæ hyalinae, cylindraceo-subcurvulae, $5-6 \approx 2-2\frac{1}{2}$; basidia clavata, $15-16 \approx 4-5$; cystidia fusoides-cuspidata, apice primitus granuloso-incrustata, dein glabra, interrupte distributa, $56-64 \approx 4-5$; hyphae contextus conglutinatae, parum evidentes, $3-4\frac{1}{2}$ μ . crassae. Variat pallida, subtestacea, carneo-fuscidata, sublivida etc. Habitu videtur forma tenuis *Corticii lividi* Fr. (Bres. l. c.)

15. *Kneiffia Roumeguerii* Bres. Fungi Polonici in Ann. Mycol. 1903, p. 102 et in Fungi Trid. II, p. 36, tab. 144, f. 1 sub *Corticio*. — Syll. XI, p. 125.

Hab. quoque ad truncos Quercus, in Polonia et pr. Romam. — Specimina hujus speciei habui ex America boreali a cl. Prof. Burt sub nomine *Peniophora Ravenelii* Cooke cum nota «distributed in Ravenel Fung. Car. 2, n. 39 under name of *Corticium leve*». Diagnosis tamen Cookei in Grev. VIII, pag. 21 cum meo fungo minus concordat et insuper Cooke scripsit quod sua species = *Corticium Auberiano* Rav. n. 1369 (non Mont.) est. An *Corticium leve* Rav. est = *Corticium Auberianum* Rav.? (Bres. l. c.)

16. *Kneiffia sanguinea* (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 101, *Corticium* Fr. Epicr. p. 561. — Syll. VI, p. 612, *Corticium glabrum* Berk. et C. North Am. Fung. n. 255, non Ellis.

Hab. ad ramos Quercus silvestris, in Polonia. — Sporæ hyalinae, obovatae, $5-6 \approx 3$; basidia clavata, $35-40 \approx 6-7$; cystidia fusoides, cuspidata, glabra, $55-60 \approx 6-7$, non ubique distributa; hyphae septatae, vix nodosae, subhymeniales 4 μ ., basales usque ad 8 μ . crassae, succo granuloso fulvo farctae. Color hujus speciei in sicco lateritio-miniatus. sed in vegeto pallidus, hymenii pallido-cremeus; tactu ut in sicco coloratur. Specimina originalia Friesiana vidi, cum quibus specimina americana *Corticii glabri* B. & C., a cl. Prof. Burt missa, exacte conveniunt. *Corticium glabrum* Ellis North Am. Fung. n. 716 est = *Peniophora carnea* (B. et C.) Cooke (Bres. l. c.).

17. *Kneiffia purpurea* (Cooke et Morg.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 100, *Thelephora purpurea* Cooke et Morg. Myc. Fl. Miami Valley p. 198, *Hymenochaete* Cooke — Syll. VI, p. 597.

Hab. ad truncos, in Polonia. — Sporæ hyalinae, subcylindraceae, $6-7 \approx 3$; basidia clavata 6-7 μ . lata; cystidia cylindraceo-subfusoides, hyalina, demum basi straminea, crassiuscule tunicata, apice obtusa, primitus tunicata, dein granuloso-asperula, $100-120 \approx$

8-10; hyphæ contextus 3-4 μ . latæ. Cum speciminibus authenticis in Morgan n. 683 comparavi (Bres. l. c.).

18. *Kneiffia plumbea* (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 103, *Corticium* Fr. Hym. Eur. p. 663. — Syll. VI, p. 624.

Hab. quoque ad ligna, in Polonia. — Late effusa, primitus purpureo-violacea, dein ætate plumbea, rimosissima; sporæ hyalinæ, cylindræo-curvulæ, 9-11 \times 3-4; basidia clavata, 30-32 \times 6-7; cystidia parum prominula, tunicata, fuscidea, 36-40 \times 7-10; hyphæ irregulares, conglutinatæ, parvæ, 3-4 μ . crassæ. *Peniophoræ cinereæ* Fr. admodum affinis et forte tantum ejus varietas. Cum speciminibus originalibus friesianis comparavi. Specimina a Karsten habita jam primitus plumbea et minus compacta, forsàn quia sterilia, de cetero vix diversa (Bres. l. c.).

19. *Kneiffia longispora* (Pat.) Bres. Fungi Polonici in Ann. Mycol. 1963, p. 1051, *Hypochnus* Patouill. Journ. Bot. 1894, n. 221. — Syll. XI, p. 130.

Hab. quoque ad truncos Betulæ, Alni, Carpini, Populi et Æsculi, in Polonia. — Sporæ hyalinæ, sinuato-vermiculares, 12-15 \times 2½; basidia clavata, tetraspora, longe sterigmatica, 30-32 \times 5-6; cystidia subuliformia, tenuiter tunicata, laxè granuloso-incrustata, 70-90 \times 3-4½; hyphæ septato-nodosæ 2½-4 μ . Species hæc, primo in Tunisia detecta, in Polonia rossica admodum communis videtur; etiam in Austria lecta fuit a cl. prof. equite de Höhnel. Specimina nostra cum speciminibus originalibus a cl. Patouillard benevole missis comparavi. (Bres. l. c.).

20. *Kneiffia levis* (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 99, *Corticium leve* Fr. — Syll. VI, p. 611 — non Pers.

Hab. quoque ad corticem Carpini, Coryli, Alni, Populi et Betulæ, in Polonia. — A *Corticio levi* Pers. differt notis microscopicis, quæ secuntur: sporæ obovatæ, biguttulatæ, hyalinæ, 5-6 \times 2½-3; basidia clavata, 35-40 \times 6-7; cystidia subcylindræa vel subfusiformia, tenuiter tunicata e granulato-incrustata sublevia, 50-80 \times 6-7; hyphæ basidiophoræ tenues, 3-4; hyphæ cystidiophoræ crassiuscule tunicatæ, basi usque ad 7 μ . crassæ. Teste Burt in litt., qui specimina Friesiana in Herbario Kewensi vidit, species hæc genuinum *Corticium leve* Fr. sistit. (Bres. l. c.).

21. *Kneiffia levigata* (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 104, *Corticium* Fr. Epier. p. 565. — Syll. VI, p. 628 — *Xerocarpus Juniperi* Karst. Hattsv. II, p. 138 (forma biennalis).

Hab. quoque ad ramos Juniperi, in Polonia. — Sporæ hya-

linæ, cylindraceæ, 7-10 \times 3-4; basidia clavata, 25-30 \times 5-6; cystidia fusioidea, furfuraceo-tunicata, 40-60 \times 7-9; hyphæ conglutinatæ 3-4 μ . E lurido cinnamomea canescens. Species hæc a *Stereo areolato* Fr. forma resupinata, meo sensu, non distinguenda. (Bres. l. c.).

22. *Kneiffia incarnata* (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 103, *Corticium* Fr. Epicr. p. 564. — Syll. VI, p. 625.

Hab. quoque ad ramos Pini silvestris, in Polonia. — Sporæ hyalinæ, subcylindraceæ, uno latere depressæ, 8-10 \times 4-4 $\frac{1}{2}$; basidia clavata, 35-50 \times 6-7; cystidia fusioidea, incrustata, crasse tunicata, 60-75 \times 10-18. (Bres. l. c.).

23. *Kneiffia gigantea* (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 99, *Corticium* Fr. Epicr. p. 559. — Syll. VI, p. 610.

Hab. ad ligna Pini silvestris, in Polonia. — Sporæ hyalinæ, elongato-subcylindraceæ, 6-8 \times 3-3 $\frac{1}{2}$; basidia clavata, 30-35 \times 5-6; cystidia fusioidea, crasse tunicata, furfuraceo-incrustata, 54-10 \times 8-15; hyphæ contextus crasse tunicatæ, 4-7 μ .

24. *Kneiffia cremea* Bres. Fungi Polonici in Ann. Myc. 1903, p. 100 et in Fungi Trid. II, p. 63, tab. 173, f. 2 sub *Corticio*. *Peniophora cremea* (Bres.) Sacc. et Syd. — Syll. XVI, p. 195.

Hab. ad truncos et ramos Quercus, Carpini, Alni, Castaneæ et Pini. — Species valde communis in Polonia rossica; variat cremea, ochracea et luride straminea. Cystidia in junioribus sæpe apicè granuloso-asperula, sed mox glabra.

25. *Kneiffia cinerea* (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 103, *Corticium* Fr. Epicr. p. 563.

Hab. ad ramos Salicis cinereæ, in Polonia. — Sporæ hyalinæ, cylindraceo-curvulæ, 8-11 \times 2 $\frac{1}{2}$ -3; basidia clavata 30-35 \times 6-7; cystidia fusioidea, tunicata, 36-50 \times 7-12; hyphæ contextus 3-4 μ ., parcæ.

26. *Kneiffia aurantiaca* Bres. Fungi Polonici in Ann. Mycol. 1903, p. 103 et in Fungi Trid. II, p. 37, tab. 144, f. 2 sub *Corticio*. — Syll. XI, p. 126.

Hab. ad ramos Alni glutinosæ, in Polonia. — In hoc specimine sporæ 15-18 \times 10-12; basidia 80-90 \times 12-14; cystidia ut in typo; hyphæ 3-4 μ . crassæ.

CONIOPHORA D. C. — Syll. VI p. 646, IX p. 241, XI pag. 129, XIV p. 224, XVI p. 195.

1. *Coniophora arida* Fr. Hym. Europ. p. 659. — Syll. VI, p. 648, 642
Thelephora Fr. Elenc. p. 197.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Sporæ luteæ, obverse ovatæ, $10-14 \approx 7-9$; basidia clavata, $35-40 \approx 8-10$; hyphæ subbasidiales hyalinæ, contextus stramineæ vel ex ætate plus minusve coloratæ, septatæ, ad septa interdum inflatæ vel nodosæ, $3-6 \mu$. crassæ. — Var. *lurida* Karsten Symb. VIII, p. 12 (ut species). Cum typo, a quo colore, de cetero variabili, tantum diversa. — Var. *flavo-brunnea* Bres. Fungi Polonici, in Ann. Mycol. 1903, p. 110: late effusa, primitus flocculosa, flava, ambitu albo fimbriato, dein subpapyracea, secedens, brunneo-livida, sublevis; sporæ luteæ, $9-13 \approx 6\frac{1}{2} \approx 8$; hyphæ $3-8 \mu$. crassæ. Ad ligna Pini silv., in Polonia.

CONIOPHORELLA Karst. Finl. Basidsv. p. 438. — Syll. XIV, p. 12.

— Ab affini *Coniophora* (unde nomen *Coniophorella*) differt cystidiis clavato-fusoideis eminentibus.

1. *Coniophorella byssoidea* (Pers.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 111, *Coniophora byssoidea* (Pers.) Fr. — Syll. VI, p. 652, *Thelephora* Pers. Syn. p. 577, *Diplonema sordescens* Karst. Finl. Basidsv. p. 430, *Tomentella obducens* Karst. l. c. pag. 421, *Peniophora unicolor* Peck 43 Rep. p. 23, Cfr. Syll. IX, p. 239 et 240.

Hab. quoque ad corticem et ramenta Pini silv. et ad thallum *Peltigeræ* cujusdam, in Polonia. — Sporæ primitus hyalinæ, guttula straminea, dein stramineæ, oblongæ, $5-6 \approx 3-3\frac{1}{2}$, raro 4μ .; basidia clavata, $20-25 \approx 5-6$; cystidia fusoidea, levia, sæpe 1-pluri-septata, ad septa interdum nodosa, $70-90 \approx 4\frac{1}{2}-6$; hyphæ cystidiophoræ flavidæ, regulares, septato-nodosæ, $2\frac{1}{2}-4\frac{1}{2} \mu$.; hyphæ basidiophoræ tenues, hyalinæ, subirregulares, $4-6 \mu$. crassæ.

2. *Coniophorella olivacea* (Fr.) Karst. Finl. Basidsv. p. 438. — Syll. VI, p. 649, *Hypochnus* Fr. Obs. 2, p. 282 pro parte, *Coniophora Ellisii* (B. et C.) Cooke. — Syll. VI, p. 648.

Hab. quoque ad ligni Pini silvestris, in Polonia. — Sporæ luteo-fuscæ, obverse ovatæ, sæpe uno latere compressæ, $10-14 \approx 5-6$; basidia clavata, $30-35 \approx 8-9$ cystidia clavata vel fusoidea, e granuloso-scabra leviuscula, septata, flavida, $100-150 \approx 9-12$; hyphæ contextus septatæ, raro nodosæ, fusciculæ, 8μ . crassæ. In Herbario Friesii sub nomine *Hypochnus olivaceus* Fr. duæ inveniuntur species, sc. species hic exhibita et *Hypochni* sp. sporis globosis, echinulatis etc. qui sub nomine *Hypochnus olivaceus* remanere potest. Specimina Karstenii mecum benevole communicata

cum nostris concórdant. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 111).

3. *Coniophorella umbrina* (Alb. et Schw.) Bres. Fungi Polonici in Ann. Mycol. 1903, pag. 111, *Coniophora umbrina* (A. S.) Fr. — Syll. VI, p. 652 — *Thelephora* Alb. et Schw. p. 281 β .

Hab. ad truncos Pini silvestris, in Polonia. — Sporæ fusciculæ, obverse obovatæ vel subamygdaliformes, $9-12 \approx 6-8$; basidia clavata, $30-9-10 \mu$; cystidia subfusioidea, e granuloso-scabris levia, septata, $100-120 \approx 9-12$; hyphæ fuscae, $3-7 \mu$. crassæ. A *Coniophorella olivacea* Fr. fere tantum colore diversa, quæ in speciminibus visis semper constans.

HYPOCHNUS Fr. — Syll. VI p. 653, IX p. 242, XI p. 130, XIV p. 225, XVI p. 196, 1117.

1. *Hypochnus puniceus* (Alb. et Schw.) Fr. — Syll. VI, p. 661. — 643
var. *bolaris* Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107. — Late effusus, tomentosus, lateritius, ambitu vix diversus; hymenio demum granuloso; sporis sub micr. subluteis, angulato-subglobosis, aculeolatis, $9-10 \approx 7-8$; basidiis clavatis, $25-30 \approx 7$; hyphis granulis fulvis repletis, $4-6 \mu$. crassis.

Hab. quoque ad acus Coniferarum, in Polonia. — A typo, cui colore et forma simillimus, differt sporis sinuato-angulatis, minus globosis minusque valide aculeatis.

2. *Hypochnus Gardeniæ* Zimm. in Centr. f. Bakter. Paras. 1901, 644
n. 3, p. 102, fig. 2. — Applanatus, albus, tæniæformis, 1 mm. lat., e ramis ad petiolos et fol. pag. inf. foliorum extensus ibique tenuissimus, ex hyphis usque 13μ . cr., intermixtis angustioribus, formatus, denique carneus et fertilis; basidiis fasciculatim stipatis cylindræo-clavatis $15-20 \mu$. longis, sterigmatibus quaternis $4-5 \mu$. long.; sporis ovoideis, hyalinis, $5-6 \approx 4-5$.

Hab. in ramis petiolisque Gardeniæ floridæ cultæ, cui valde noxius, in horto bot. Buitenzorg Javæ.

3. *Hypochnus fusco-ferrugineus* Bres. Fungi Polonici in Ann. Mycol. 1903, p. 109. — 645
Latissime effusus, tomentosus, fuscus, ambitu mox similari; hymenio sublevi, luride ferrugineo-fulvello; sporis subellipsoideo-angulatis, aculeatis, fusco-fulvis, cum aculeis $12-15 \approx 10-12$; basidiis clavatis, $40-45 \approx 9-10$; hyphis subhymenialibus hyalino-fumosis, contextus fuscis, septato-nodosis, ad nodos subinflatis, $4-6 \mu$. crassis.

Hab. ad ramos Frangulæ Alni, in Polonia. — Exacte

medius inter *Hypochnum ferrugineum* Pers. et *Hypochn. rubiginosum* Bres.

4. **Hypochnus albo-stramineus** Bres. Fungi Polonici in Ann. Mycol. 646 1903, pag. 109. — Longe lateque effusus, furfuraceo-flocculosus, straminellus, ambitu pruinato; hymenio minute scrobiculato, concolori; sporis hyalinis, ovato-subglobosis, breviter aculeolatis, $8-9 \approx 7-8$; basidiis cylindraceo-subclavatis, $50-60 \approx 6-7$; hyphis hyalinis, septato-nodosis, subhymenialibus $4-4\frac{1}{2}$ μ , basalibus usque ad 6 μ . crassis.

Hab. ad ramos Populi tremulæ, in Polonia. — Ab *H. cremicolor* cui valde accedit, sporis majoribus longiusque aculeatis et contextu laxiori præcipue differt.

5. **Hypochnus cremicolor** Bres. Fungi Polonici in Ann. Mycol. 1903, 647 p. 109. — Longe lateque effusus, tomentosus, ex albo cremicolor, ambitu furfuraceo; hymenio sublevi, concolori, demum late rimoso; sporis hyalino-substramineis, ovato-subglobosis, ambitu regulari, episporio punctato-scabro vel granuloso, $5-6 \approx 4\frac{1}{2}-5$; basidiis clavatis, $30-35 \approx 6-7$; hyphis contextus hyalinis, 3-8 μ . cr.

Hab. ad corticem truncorum Alni glutinosæ, in Polonia.

6. **Hypochnus cæruleus** Bres. Fungi in Ann. Mycol. 1903, p. 109. 648 — Late effusus, tomentosus, ambitu furfuraceus, atrocæruleus, tinctura sæpe subæruginea; hymenio floccoso-subscrobiculato; sporis subglobosis, subsinuatis, aculeolatis, fusciculis, $6-9 \approx 6-7$; basidiis clavatis, $30 \approx 9$; hyphis hyalino-fumosis, septato-nodosis, ad nodos sæpe subinflatis, 3-6 μ . crassis.

Hab. ad terram et ad frustula lignea adhaerentia, in Polonia. — Habitu et colore *Corticium cæruleum* Fr. simulat, sed structura optime distinctus.

7. **Hypochnus chlorinus** Massee in Kew Bull. 1901, p. 158. — Su- 649 biculo latissime effuso, membranaceo, subsecedenti, subtus et ambitu fibrilloso; hymenio chlorino, densissime granuloso; basidiis clavatis, apice truncatis $11-13 \approx 5$, 4-sterigmaticis; sporis globosis hyalinis 4 μ . diam.

Hab. in truncis in Tasmania (Rodway). — Zonæ effusæ luteo-griseæ granuloso-pulverulentæ, lecideiformes.

8. **Hypochnus Bresadolæ** Brinkmann in Bres. Fungi Polonici in 650 Ann. Mycol. 1903, p. 108. — Late effusus, tomentosus, cacinus, ambitu subradiato, albido, mox concolore; hymenio pruinato-furfuraceo; sporis globosis, luteo-fuscis, vix una alterave uno latere depressis, eximie aculeatis, cum aculeis $12-16 \approx 11-16$; basidiis cla-

vatis, 35-40 \times 10-12; hyphis fuliginis, septato-nodosis, ad nodos inflatis, regularibus, 5-8 ad nodos 12 μ . crassis.

Hab. ad corticem Quercus et Pruni Cerasi in Westfalia (BRINKMANN). -- Variat in forma polonica sporis 12-14 μ . diam. et hyphis 4-7 μ .

9. **Hypochnus alutaceo-umbrinus** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 109. — Longe lateque effusus, tomentosus, umbrinus, margine pallide fimbriato dein similari; hymenio sublevi, pallide alutaceo vel subisabellino; sporis luteis, echinulatis, subglobosis, vix sinuatis vel angulatis, 8-9 μ . diam. vel 9 \times 8; basidiis clavatis, 40-45 \times 9-10; hyphis subhymenialibus hyalinis, subregularibus contextus stramineo-fuscis, septato-nodosis, 3-5 μ . cr.

Hab. ad Carpinum Betulum, in Polonia.

10. **Hypochnus epimyces** (Bres.) Sacc. et D. Sacc. *Corticium* (*Hypochnus*) *epimyces* Bres. Verh. Z. B. G. Wien 1901, p. 641. — Effusus tenuis, tomentosulus, fuligineo griseus; hymenio unito, pallidiores; sporis globosis v. rarius subglobosis, fumoso-hyalinis muriculatis, 8-10 μ . diam. v. 9-10 \times 8-9; basidiis clavatis, 45-50 \times 7-8; hyphis basidiophoris hyalinis, contextus stramineo-hyalinis, regularibus, 2,5-3,5 μ . cr.

Hab. supra Trametem odoratam in Sonntagberg Austriae (STRASSER).

11. **Hypochnus fulvescens** Sacc. in D. Sacc. Myc. ital. n. 1206 et in Ann. Mycol. 1904, p. 2, tab. III, fig. 1. — Effusus, ramulos ambiens, tenuissimus, sub vitro velutinus, ambitu conformi vix distincto, superficie setulis acicularibus, obtusulis, croceis, 80-90 \times 4-6 conspersus; hyphis subhymenialibus filiformibus, varie ramosis, laxe intricatis, septulatis, aureo-fulvis; basidiis ex hypharum ramulis ultimis orientibus, tereti-clavatis, apice obtusis, 14-16 \times 3-4, dilute fulvis; sterigmatibus subbinis brevissimis; sporis globosis, non omnino regularibus, minutis, 3-4 μ . diam., subhyalinis.

Hab. ad ramulos emortuos Callunæ vulgaris, Riva Valdobbia (Novara), autumnus 1900 (Ab. ANT. CARESTIA). — Affinis *Hypochno setoso* Schröt.

12. **Hypochnus chætophorus** v. Höhnelt, Fragmente zur Mykologie 1903, p. 21. — Late effusus, tenuis, arcte adnatus, indeterminatus, floccoso-grumosus, setulis dense approximatis hispidulo-velutinus, candidus vel pallidus, hymenio e basidiis tetrasporis, 4-5 μ . crassis et setulis albis, rigidis, acutis, levibus, acicularibus, crassissime

tunicatis, ad basin plerumque ramoso-dilatatis, 100-160 \times 5-10 formato; sporis ellipsoideis, hyalinis, levibus 6 \approx 3.

Hab. in Laricis ligno putrido in silvis ad Krummbachleithen montis Schneeberg Austriae inferioris.

13. **Hypochnus Weisseanus** P. Henn. Verh. Brandbg. XXXXIII, 655

1901, p. XII. — Pellicula tenui, albida, subcompactiuscula, folia tegente; hyphis intricato-ramulosis, hyalinis, septulatis 4-6 μ . crassis; basidiis interdum dense compressis, clavulatis, 15-22 \times 4-6, hyalinis, apice sterigmata 2 vel 4 gerentibus; sporis subglobosis, hyalinis, levibus vel subechinulatis, 4-5 μ . crassis; conidiis episorio brunneo, verruculoso, 7-10 μ . diam.

Hab. in foliis Leucobryi vulgaris, pr. Nahmitz Germaniæ (Doct. A. WEISSE).

14. **Hypochnus arachnoideus** (Berk. et Br.) Bres. Fungi Polonici in 656

Ann. Mycol. 1903, pag. 108, *Thelephora* B. et Br. F. of Ceyl. n. 581. — Syll. VI, pag. 543, *Thelephora floridana* Ell. et Ev. Journ. Mycol. II, p. 37.

Hab. quoque ad ramos Tiliæ in Polonia. — Sporæ globosæ, subangulatæ, fuscae, aculeatæ, 8-10 \times 8-9, rarius 7-9 \times 7; basidia clavata, 30-35 \times 7-8; hyphæ contextus fuscae, regulares, basales punctato-scabrae vel tunica granoso-aculeolata primitus indutæ, usque ad 9 μ . crassæ. — Var. **murinus** Bres. l. c.: late effusus, tomentosus, fuscus, ambitu primitus pallido-subfimbriato, dein concolori et similari; hymenio sublevi, fumoso vel murino-fumoso; sporis fuscis, subgloboso-angulatis, aculeatis, 8-9 μ . diam. vel 9-10 \times 7-8 sine aculeis; basidiis clavatis, 30-35 \times 9-10; hyphis subhymenialibus pallidis, 3-4 μ ., contextus fuscis, regularibus, septato-nodosis, 5-6 μ . crassis. Ad ramos, in Polonia A typo differt hymenio discolore (an ex ætate?) et contextu fusco, nec umbrino-castaneo.

15. **Hypochnus cæsius** (Pers.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107, *Corticium* Pers. Obs. I, p. 15, tab. 3, f. 6, *Thelephora* Fr. Hym. Europ. p. 638. — Syll. VI, p. 540.

Hab. quoque ad terram et folia decidua, in Polonia. — E cæsio-cinereo canescens vel in perfecte evolutis ravidus, ambitu subfimbriato; sporæ globosæ vel globoso-subsinuosæ, fuscae, aculeolatae, 8-11 μ . diam. vel 9-11 \times 7-9; basidia clavata, 30-35 \times 8-10; hyphæ septato-nodosæ, ad septa sæpe inflatæ, 3-7 μ . crassæ.

16. **Hypochnus chalybeus** (Pers.) Sacc. — Syll. VI, p. 659, *Tomentella chalybea* Pers. Obs. II, p. 2.

Hab. quoque ad ramos Coryli Avellanæ, in Polonia. — Late effusus, tomentosus, brunneolus, margine fimbriato vel sub-similari; hymenium leve, plumbeum vel chalybeo-cinereum, ætate substrato concolor; sporæ subglobosæ, subdepressæ, aculeatæ, 10-14 \times 9-10; basidia clavata, 40-45 \times 10-12; hyphæ subhymeniales hyalinae, 3-4 μ .; hyphæ contextus fuscae, regulares, septato-nodosæ, 4-7 μ . Specimina authentica persooniana non vidi, nec in Museo lugdunensi exstant; diagnosis tamen l. c. bene convenit, exclusa tinctura olivacea, quæ in fungo nostro nunquam obvia. Sensu Auctorum nonnullorum genuina *Tomentella chalybea* Pers. esset = *Corticium atrovirens* Fr., de quo supra, quod tamen non chalybeum sed cæruleum, nec olivaceo-cinereum sed flavo-viride (Bresadola, Fungi Polonici in Ann. Mycol 1903, p. 106).

17. **Hypochnus cinerescens** Karsten Finl. Basidsv. p. 441. — Syll. IX, p. 244.

Hab. quoque ad truncos Quercus et Alni, in Polonia. — Sporæ globosæ, luteolæ, echinulatæ, 6-7 \times 5-6-6 $\frac{1}{2}$; basidia clavata, 20-25 \times 5-6; hyphæ contextus hyalino-stramineæ, basales punctato-scabræ, regulares, septato-nodosæ, 3-4 $\frac{1}{2}$ μ . Ab *Hypochno granoso* B. et C. colore modo diversus et probabiliter tantum ejus statum juvenilem sistit. Hymenium quoque granosum, prout in speciminibus authenticis a cl. Karsten habitis. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 108).

18. **Hypochnus eradians** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 106, *Thelephora* Fr. El. I, p. 195. *Coniophora eradians* Fr. — Syll. VI, p. 651.

Hab. quoque ad corticem Frangulæ Alni et Pini silv., in Polonia. — Hymenium rugoso-radiatum vel etiam leve, demum granulosum, ambitu pulchre albo-fibrilloso-radiato; sporæ fuscae, subglobosæ, plus minusve angulato-sinuosæ, echinato-granulosæ, 8-12 \times 7-9, generatim 9-10 \times 7; basidia clavata, 30-35 \times 7-8; hyphæ fuscae, septato-nodosæ, sat regulares, 4-7 μ . Species hæc forte nil aliud quam forma lignicola *Hypochni crustacei* (Schum.) Karst.

19. **Hypochnus furfuraceus** Bres. Fung. Trid. II, p. 97, tab. 208, f. 2. — forma *cinerella* Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107. — Syll. XVI, p. 196.

Hab. ad ligna Pini silv. et Betulæ, in Polonia. — Quam typus tenuior, cinerellus; basidiis 12 \times 9-10, 2-4-sporis, ut plurimum bisporis, sterigmatibus usque ad 7 μ . longis; sporis globosis 6-7 μ . diam. punctato-scabris. Probabiliter forma juvenilis.

20. **Hypochnus granosus** (Berk. et C.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 108, *Thelephora* Berk. et C. North Am. Fungi n. 224. — Syll. VI, p. 546.

Hab. quoque ad truncos Betulæ, in Polonia. — Sporæ fusco-luteæ, subglobosæ, subangulatæ, echinulatæ, $7-8 \times 6-7$; basidia clavata, $20-25 \times 5-6$; hyphæ subhymeniales, tenues, $4-5 \mu$; hyphæ contextus regulares, tenaces, hyalino-fuscidulæ, septato-nodosæ, 3μ , basales punctato-scabræ, $4-5 \mu$. crassæ.

21. **Hypochnus isabellinus** Fr. Obs. II, p. 281, tab. VI, f. 3. — Syll. VI, pag. 657. — *Hypochnus argillaceus* Karst. Symb. Myc. Ser. VIII, p. 13, *Tomentella flava* Bref. Unters. VIII, p. 11, fide specimenis a Brinkmann missis ad cl. Bres.

Hab. quoque ad corticem Pini silv., in Polonia. — Sporæ globosæ, flavæ, aculeatæ, $10-12 \mu$. diam. cum aculeis, absque aculeis $7-9 \mu$; basidia clavata variæ longitudinis, $20-60 \times 8-10$, 2-4-stigmatica; hyphæ irregulares, hyalino-stramineæ, septatæ, ad septa inflatæ, $8-15 \mu$. crassæ. Color in specimenibus junioribus luride argillaceus, in bene evolutis, trama magis compacta, læte isabellinus. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 106).

22. **Hypochnus pellicula** Fr. ut var. *Hypochni mollis* Fr. Syll. VI, p. 656 — *Corticium echinosporum* Ellis in E. et E. N. A. Fungi n. 608. — Syll. VI, p. 633.

Hab. quoque ad ramos Pini silvestris et vix diversus ad ramos Alni, in Polonia. — Sporæ stramineæ, globosæ, echinulatæ, $5\frac{1}{2}-7 \times 5-6$ vel $6-7 \mu$. diam.; basidia clavata, $20-25 \times 5-6$ vel in specimenibus crassioribus $30 \times 4-8$; hyphæ hyalinæ, septato-ramosæ, raro nodosæ, regulares, $3-4\frac{1}{2} \mu$. crassæ. Specimina americana exacte concordant. *Hypochnus mollis* Fr. typicus sporis gaudet subellipticis, levibus; insuper receptaculum magis compactum etc. ita ut var. *pellicula* ceu specificè distincta habeatur. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 107).

23. **Hypochnus tristis** Karsten Finl. Basidsv. p. 440, *Hypochnopsis* 658 *fuscata* Karsten l. c. p. 443, *Hypochnus fuscatus* (Karst.) Sacc. Syll. IX, p. 244, *Hypochnus sitnensis* Bres. Hym. Kmet. p. 51.

Hab. quoque ad ramos Rhamni catharticæ, in Polonia. — Specimina originalia *Hypochnopsis fuscata* Karsten examinavi et cum specimenibus *Hypochni tristis* K., pariter originalibus, et *Hypochni sitnensis* Bres. comparavi et identica inveni. Sporæ *Hypochnopsis fuscata* quoque sunt globoso-subangulatæ, muricato-verrucosæ, $9-12 \times 9-11$, nec, ut habet Karsten, leves, $3-4 \mu$. diam.

(Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 107). — Var. **ardosiacus** Bres. l. c.: differt hymenio fusco-palumbino. Ad truncos Betulæ in Polonia.

EXOBASIDIUM Wor. — Syll. VI p. 664, IX p. 244, XI pag. 130, XIV p. 229, XVI p. 198.

1. **Exobasidium Yoshinagai** P. Henn. Fungi japonici IV, in Botan. Jahrbücker vol. XXXI, 1902, p. 736. — Maculis rotundato-effusis, fuscis; hymenio hypophyllo, haud incrassato, cinereo-incarnescente, subceraceo, dein subpulverulento; basidiis clavatis; sporis subcylindræis v. oblonge subfusoides, utrinque obtusis, $5-6 \approx 2-2,5$ hyalinis.

Hab. in foliis Rhododendri tosaënsis, Tosa Japoniæ.

2. **Exobasidium shiraianum** P. Henn. Engl. Jahrb. 1902, XXXII, p. 38. — Hymenio hypophyllo, effuso albido, pruinoso, haud bulboso; basidiis clavatis 4-sterigmatibus sporis fusoides, rectis vel subcurvulis $7-11 \approx 2\frac{1}{2}$ hyalinis.

Hab. in pag. inf. foliorum juniorum Rhododendri Metternichii, Mont Shirane Japoniæ (S. KUSANO).

3. **Exobasidium Pieridis** P. Henn. in Engl. Jahrb. 1902, p. 38. — Hymenio in foliis petiolisque nodulis galliformibus, subcarnosis, subglobosis vel laceratis, corneis, pruinosis, varia magnitudine; basidiis 4-sterigmaticis; sporis oblonge fusoides, rectis, hyalinis $7-9 \approx 3$.

Hab. in foliis vivis Pieridis ovalifoliæ, Mont Tukubo Japoniæ (S. KUSANO).

ENDOBASIDIUM N. Speschnew Fungi transcaspici et turkestanici, 1901, pag. 12 (Etym. *endon* intus et *basidium*). — Hymenium fibrosum, endophytum, nunquam erumpens. Hyphæ steriles crassæ, septatæ. Hymenium leve, interdum undulatum, tenuissime granulatum. Basidia apice truncato-rotundata, bi-sterigmatica; sporæ globosæ, hyalinæ, dein olivaceo-brunneæ. Conidia minuta, globosa, hyalina.

1. **Endobasidium clandestinum** N. Speschnew, l. c., tab. II, fig. 6-11. — Maculis in acinis submaturis solitariis v. confluentibus atro-violaceis determinatis, leviter concentrico-undulatis; mycelio crassiusculo, ex hyphis stipatis, $9-14 \mu$. cr., tortuosis sæpe moniliformibus, intus pluri-vacuolatis, formato; hyphis fertilibus, diaphanis $80-90 \approx 2-4$, apice basidiosporis; sporis ovoideis, continuis, acrogenis binis v. rarius solitariis, $8-12 \approx 7-9$, ex hyalino olivaceis; hy-

phis conidiophoris paullo crassioribus, apice conidia globosa copiosissima 2 μ . diam. gerentibus.

Hab. sub epidermide acinorum submaturorum *Vitis vinifera*, quos exurit, Samarkand, Bukhara Asiæ.

CYPHELLA Fr. — Syll. VI p. 667, IX p. 245, XI p. 132, XIV p. 231, XVI p. 200.

1. **Cyphella flocculenta** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 111, *Thelephora flocculenta* Fr. El. I, p. 184 (1828), *Corricium flocculentum* Epicr. p. 559. — Syll. VI, p. 605, *Cyphella ampla* Lév. Ann. sc. nat. 1848, p. 126. — Syll. VI, p. 667.

Hab. quoque ad ramos *Populi Tremulæ*, in Polonia. — Sporæ hyalinæ, cylindraceo-subcurvulæ, 9-11 \times 2 $\frac{1}{2}$; basidia clavata, apice 4-sterigmatica.

2. **Cyphella cochlearis** Bres. Fungi Lusit. in Broteria, 1903, vol. II, pag. 88. — Cupulari-stipitata; cupula subhemisphærica, cernua, horizontaliter posita, angulum rectum fere cum stipite efformans, grisea, villosula 3-4 mm. lata; hymenio discoideo e levi radiatim ruguloso, griseo-fumoso; stipite farcto, tereti, pallido-griseo, puberulo, basi albo-tomentoso 3-5 mm. longo, 1 mm. circiter cr.; basidiis clavatis 25-30 \times 7-8; sporis hyalinis, obovatis v. piriformibus, 6-9 \times 4,5-6.

Hab. ad terram inter muscos minores, in Lusitania. — Adest varietas subsessilis et auriformis, sed rarior.

3. **Cyphella pseudovillosa** P. Henn. in Bot. Jahrb. 1904, p. 43. — 664 Subglobosa, clausa, initio subcupulata, extus albida villosa 0,3-0,7 mm. diam., pilis simplicibus haud septatis, acutis, hyalinis, levibus, usque ad 250 \times 4-6, disco pallido levi; basidiis ovoideis vel clavatis 13-17 \times 7-8, 2-sterigmaticis; sporis ovoideis vel late ellipsoideis, hyalinis, levibus 4-5 \times 4.

Hab. in ramis emortuis Schagajuwald, Ost Usambara, Afr. orient. (ENGLER).

4. **Cyphella muscigena** (Pers.) Fr. Epicr. p. 567. — Syll. VI, p. 681, *Thelephora* Pers. Syn. pag. 572, *Stereophyllum boreale* Karsten Symb. Myc. Fenn. XXIX, p. 104. — Syll. IX, p. 223.

Hab. ad *Atrichum undulatum*, in Polonia. — Sporæ hyalinæ, subglobosæ, guttula subolivacea, 3-4 \times 3; basidia clavata, 14-15 \times 3; hyphæ 2 μ . crassæ. Species quoad formam variabilissima Specimen *Stereophylli borealis* Karst. a me visum formam spa-

thulatam hujus speciei sistit (Bresadola, Fungi Polonici in Ann. Mycol. p. 111).

5. *Cyphella juruensis* P. Henn. F. Amaz. I, p. 173 (Hedw. 1904). 665
— Pileo coriaceo-membranaceo, unguiculato vel oblique campanulato, postice affixo, superne pallido-brunneo vel flavido, levi, glabro ca. $1\frac{1}{2}$ mm. longo, 1 mm. lato, hymenio concavo pallido, sublevi; basidiis clavatis, hyalinis, $7-10 \approx 2\frac{1}{2}-3\frac{1}{2}$; sporis subglobosis vel ovoideis, hyalinis, levibus, $2\frac{1}{2}-3$ μ . diam.

Hab. ad ramos Juruá St. Clara Amazoniæ (ULE). — Pilei minuti, sparsi.

6. *Cyphella patens* Annie L. Smith Journ. Linn. Soc. XXXV, p. 10 663
(extr.). — Syll. XVI pag. 1117 (nomen). — Sparsa, tubæformis, elongata, fere ad basim fissa et expansa, margine superiore incurvata, circa 5 mm. longa, 2 mm. lata, extus flava tomentosa; hymenio brunneo, plicis paucis angustis lamelliformibus instructo; sporis globosis, minute asperulis 5 μ . diam., hyalinis

Hab. in corticibus arboris in ins. Dominica Indiæ occid.

7. *Cyphella marginata* Mc Alp. Fungus diseases, Melbourne 1902, 667
p. 120, fig. 229-232. — Subgregaria, ochracea, cyathiformis, erecta, fere pedicellata, membranaceo-gelatinosa, margine setulis curvulis luteolis villosa, 0,5-1 mm. diam.; hymenio concavo, cremeo-albo; sporis hyalinis, subglobosis vel subellipticis 8-9 μ . diam. vel $11-12 \approx 8$; basidiis elongato-clavatis, hyalinis tetrasporis.

Hab. in ramis emortuis Pruni Persicæ, Armadale prope Melbourne Australiæ.

8. *Cyphella lilacina* Massee in Kew Bull. 1901, p. 164 — Pileo sub- 668
sessili, campanulato, erecto, tenui, membranaceo-tenacello, margine primo involuto, undulato, 0,5-1 mm. diam et alt., extus dense tomentoso-pubescenti, pilis continuis 50-60 \approx 5-6, succineis, hymenio levissimo lilacino-albescente; sporis ellipticis, lilacinis, $8 \approx 5-5,5$.

Hab. in caule herbaceo emortuo, in horto botanico Aburi, Gold Coast Africae occident. — Dense gregaria, valde pilosa, *C. albo-violascenti* W. affinis

9. *Cyphella tijucensis* P. Henn. in Hedw. 1904, p. 81. — Pileo ses- 669
sili, medio affixo, ceraceo, cupulato, 1-2 mm. diam., extus pallido, pruinoso, subfarinaceo; hymenio levi, pallido; basidiis clavatis 15-20 \approx 4; sporis subglobosis v. ovoideis, 1-guttulatis, hyalinis, $4 \approx 3,5$.

Hab. in ramis Calami, Tijuca, Rio de Janeiro, Amer. merid.

10. *Cyphella Vitis* (Bon.) v. Höhn. in litt. Ita nuncupanda *Volutella Vitis* (Bon.) Sacc. III, p. 688.

TREMELLOPSIS Pat. in Duss Enum. champ. Guadel. 1903, pag. 13 (Etym. a *Tremella* et *opsis* aspectus). — Gelatinoso-tremellacea, erecta, foliaceo-lobata. Hymenium amphigenum, continuum. Basidia clavata, non septata, apice sterigmata subulata 2-4 ferentia. Cystidia nulla. Sporæ continuæ ochraceæ.

1. **Tremellopsis Antillarum** Pat. l. c. — Pileo massam gelatinosam, 670 e foliolis erectis, crispis, integris lobatisve, plus minus ramosis, radiantibus, sessilibus breviterve stipitatis formatam, efficiente, e griseolo rufo-ochraceo, parum crasso; basidiis 30-35 \times 10; sporis ochraceis, ovoideis, levibus, 8-10 \times 5-6.

Hab. ad ligna putrida, Matouba Guadalupæ (Duss). — Fungus 1-2 cm. alt., 2-3 cm. cr. Trama mollis, filamentis 10 μ . cr., tenui-tunicatis, laxiusculis.

BORNETINA Mang. et Vial. La phthiriose de la vigne, Paris 1903, pag. 6 et seqq. — Mycelium radices late ambiens membranaceo-coriaceum, superficiale, ambitu varium. Hyphæ steriles filiformes, varie intricato-contextæ, ramosæ, continuæ; fertiles ascendentes, sursum ramuloso-sporigeræ, noduloso-septatæ. Sporæ globosæ, 1-cellulares, initio leves, dein distincte verrucosæ, vertice apiculatæ, basi pedicellatæ et cum pedicello secedentes. — Videtur ad *Thelephoraceas* magis accedere. — Illustri J. B. BORNET dicatum genus.

1. **Bornetina Corium** Mang. et Vial. l. c. t. I-IV. — Characteres 671 generis. Mycelio crasso ex albo sordide fusco; sporis initio hyalinis, dein fuscescentibus, 10-12 μ . diam.

Hab. in radicibus *Vitis viniferæ*, *Dactylopio Vitis* in vasis Jaffa et Caiffa in Palæstina — Radices *Dactylopio* et *Bornetina* obductæ, asphyxiâ laborant et tandem emoriuntur. Sporæ tunica duplici instructæ, initio endogenæ.

Fam. 5. Clavariaceæ CORDA

CLAVARIA Vaill. — Syll. VI p. 692, IX p. 247, XI p. 134, XIV p. 236, XVI 203.

1. **Clavaria densissima** Peck Bull. Torr. Bot. Cl. 1903, pag. 98. — 672 Cæspitibus 7-10 cm. altis, totidem fere crass., densissimis, a basi conferte et intricato ramosis, ramis solidis, intus albis, sæpe compressis, repetito et irregulariter ramulosis, subinde anastomotidis,

siccis pallide ochraceis, ramulis ultimis plus minus compressis et dilatatis, in apices obtusos v. acutos binos v. plures albos terminatis; sporis navicularibus, sæpe 1-nucleatis, 8-10 \times 4-5; mycelio albedo.

Hab. ad humum et detrita in silvis mixtis, Greenville Michigan Amer. bor. (B. O. LONGYEAR). — Affinis *Cl. densa* et *Cl. condensata*.

2. *Clavaria caloceriformis* Oud. Bot. Centr. Beil. 1902, p. 3, extr. — 673

Ramaria leucospora, læte colorata, luteo-aurantiaca, tandem subviscosa, tamen siccando minime cornea, sed in putredinem abiens et odorem foetidissimum nauseosum spargens; trunco 3-5 cm. alto, flexuosulo, basim versus multo pallidiore, 3-5 mm. cr.; subobeso, quasi hydropico, superficie inæquali, sursum semel ramoso, ramis trunco bis ad ter brevioribus et paullo angustioribus, summo in mucrones breves, molles, acutiusculos divisus.

Hab. ad terram argillaceam, graminosam prope Bergen, Hollandiæ. — Quoad habitum et colorem maxime accedit ad fig. Schaeffer Fung. Icon. t. CLXXIV.

3. *Clavaria byssiseda* Pers. Obs. Myc. I, p. 32, Comment. pag. 54, t. 3, f. 7. — Syll. VI, p. 706.

Hab. ad ramos *Quercus* et *Salicis fragilis*, in Polonia. — Species hæc, meo sensu, vix ab auctoribus recentioribus recte est intellecta et diagnoses iconesque ultimis decenniis datæ vix dubie ad *Clavariam crispulam* Fr. ducendæ, qua de causa diagnosis novam hic exhibemus: Dense gregaria vel connato-cæspitosa, carnoso-sublenta; trunco brevi vel subnullo, puberulo, pallido, mox ramis concolore, 1-7 mm. longo, 1-3 mm. crasso, basi mycelio candido, tomentoso-lanoso, radiculis albis vel pallidis percurso, sæpe peronato; ramis brevibus, semel vel bis furcato-aut verticillato-divisis, apicibus acutis, longioribus, bi- vel trifidis vel etiam palmatis, glabris, avellaneis, demum luride isabellinis, in sicco sæpe minutissime rimosus ut furfuracei appareant; sporis hyalinis, elongato-sinuatis, veluti subsigmoideis, 13-18 \times 4-6; basidiis clavatis, 25-30 \times 8-10; hyphis contextus septatis, 4-6 μ . crassis. *Clavaria leucotephra* B. et C., *Clavaria fragrans* Ellis, *Clavaria pinophila* Peck et *Lachnocladium Micheneri* B. et C., quæ certe ad unicam speciem ducendæ sunt, videntur tantum formæ majores hujus speciei (*Bresadola Fungi Polonici* in Ann. Myc. 1903, p. 112).

4. *Clavaria cervicornis* Annie L. Smith Journ. Linn. Soc. XXXV, 674

pag. 10, tab. 1, fig. 6-8 (extr.). — Syll. XVI, p. 1116 (nomen). — Lignicola, 8 cm. alta, trunco simplici, subtereti, 2 cm. alto; ramis subdichotomis, supra spinosis, compressis, siccitate sulcatis; tota carnea, dein cinnamomea, velutino-pruinosa; sporis ellipticis, echinulatis, flavido-brunneis 6×8 .

Hab. ad ligna putrida, ins. Dominica Indiæ occid.

5. *Clavaria crassipes* Peck in Rep. of the State Botanist 1902, p. 27. 675

— Stipite crasso, firmo, solido vel basi sublacunoso, glabro, albedo, superne repetito ramoso; ramulis numerosis, firmis, in apices obtuse dentatos desinentibus, albidis vel luteolis; sporis oblongis, 1-nucleatis $15-17,5 \times 5,5-7,5$, basi oblique minute apiculatis.

Hab. in silvis, Sandlake, Amer. bor. — Planta 7,5-15 cm. alta, 5-10 cm. lata; stipes 2,5 cm. circ. alto; caro stipitis sub incisione brunnea.

6. *Clavaria grandis* Peck in Bull. Torr. Bot. Club. 1902, p. 73. — 676

Fragrans, 12-20 cm. alta et in summitate subæqualiter lata; stipite firmo, superne ramoso, ramis erectis vel subdivergentibus, superne attenuatis et repetito ramulosis, solido fragilique, glabro, rufo brunneo 2-2,5 cm. crasso; apicibus in statu juvenili albis, dein maturitate ferrugineo-brunneis; sporis ferrugineis subellipticis vel subglobosis, distincte verrucosis, $10-12 \times 6-8$.

Hab. inter cæspites Smilacis ad terram, Maryland, Amer. bor. (F. J. BRAENDLE).

7. *Clavaria Holmskjöldi* Oud. Bot. Centr. Beil. 1902, p. 3, extr. — 677

Ramaria coralloides, alba, apicibus purpurascentibus Holmsk. Otia I p. 117 et icon. ultima n. 32 fig. dextra non sinistra. — Alba vel avellanea; ramis crassioribus semel v. bis partitis plerumque obesis v. quasi inflatis 2-4 mm. cr., plenis deorsum confluentibus; ramulis primi v. secundi ordinis varie intertextis; ramulis singulis in appendiculam bilobam v. bifurcatam curtam et obesam atro-purpuream abeuntibus; parte basilari totius plantæ sæpe longitudinaliter sulcata v. crustata; basidiis clavatis 10 μ . long.; sterigmatibus quaternis, sursum filiformibus; sporis globosis 4,2 μ . diam. hyalinis.

Hab. ad terram argillaceam prope Bergen op Zoom Hollandiæ (M. LA FONTYN). — Odor mucido-aniseus.

8. *Clavaria bicolor* Massee in Kew Bull. 1901, p. 154. — Clavulis 678

robustis, brevibus, circ. 1 cm. crassis longisque; ramis ramulisque numerosis, cylindræis, pallide umbrinis, apicibus cristato-multifidis, amethystinis; basidiis clavatis, tetrasporis; sporis hyalinis, subglobosis, asperatis, $9 \times 7-8$.

Hab. ad terram, Penang, Malacca (RIDLEY). — Totus fungus 7-8 cm. alt.; *Cl. amethystinæ* Bull. affinis.

9. *Clavaria tsugina* Peck Rep. of the State botanist 1902, p. 27. — 679

Stipite brevissimo, glabro, e basi ramoso, solido; ramis paucis v. compluribus, suberectis, sæpe stipatis, flexuosis, duriusculis, firmis, acutis, initio cremeo-luteis dein vinoso-cinnamomeis vel rubro-brunneis; sporis ochraceis, ellipsoideis $7,5 \approx 3$.

Hab. in truncis emortuis *Tsugæ canadensis*, in montibus Adirondack, Amer. bor. — Planta 2,5-7,5 cm. alta, usque 7 cm. lata. *Cl. abietina* affinis.

10. *Clavaria ornithopoda* Masee in Kew Bull. 1901, p. 154. — Cla- 680

vulis tenuibus 1 cm. longis, ad apicem ramos 3-5 flabelliformes gerentibus, ramulis ultimis terminalibus aculeatis, nodulosis, arcuatis; ramis ramulisque pallide ferrugineis (in spiritu vini); basidiis anguste clavatis, tetrasporis; sporis ellipticis, hyalinis, glabris $6-7 \approx 4$.

Hab. ad terram, Penang, Malacca (RIDLEY).

11. *Clavaria myceliosa* Peck Bull. Torr. Bot. Cl. 1904, p. 182. — 681

Stipite tenui, solido, sursum irregulariter ramoso, fulvo; mycelio copioso ténias ramosas albas inter folia et ramulos repentes formante; ramis brevibus divergentibus, late patenti-ramulosis, stipiti concoloribus, ultimis ramulis acutis albidis; sporis subglobosis, 4μ . long.

Hab. sparse v. gregatim inter folia dejecta ramulosque sub arboribus (*redwood*), in montanis pr. Standford University, California Amer. bor. — Stipes vix 0,5 mm. cr., cum ramis 1-2,5 cm. alt. *Clavaria pusillæ* affinis sed adhuc minor, apice tantum ramosa etc.

12. *Clavaria Peckii* Sacc. et D. Sacc. *Clavaria bicolor* Peck in Rep. 682

of the State Botanist 1901, p. 954, nec Masee. — Gregaria, tenuis, 16-24 mm. alta; stipite exili 1-2 mm. crasso recto vel flexuoso, solido, tomentoso, pallide luteo, superne brevi 2 vel pluridiviso; ramis aurantiacis 1-2 dichotomicè divisis, acutis, concoloribus.

Hab. in pinetis, Bolton, Amer. bor. — *Lachnocladio* affinis.

13. *Clavaria luteo-alba* Rea, Trans. British Mycol. Soc. 1903-1904, 683

p. 66, pl. 3. — Clavulis simplicibus, fasciculatis v. sparsis, farctis, 4-5 cm. alt., 2-3 mm. cr., deorsum sensim tenuatis, apice constanter albis, acutis obtusisve, ceterum saturate flavis; sporis albis lacrimæformibus, h. e. obovatis basi oblique apiculatis, $5-6 \approx 3$.

Hab. inter gramina Invermay, Perthshire Britanniae. — Præcipue apice jugiter albo ab affinis dignoscitur.

14. *Clavaria fusiformis* Sow. — Syll. fung. VI p. 718. — var. *An-* 684
tillarum Pat. in Duss Enum. champ. Guad. 1903, pag. 14. — A typo differt caespitibus minus densis, clavulis gracilioribus rubescentibus, in portionem inferiorem albam tenuatis et habitatione.

Hab. in fragmentis ligneis putridis in silvis interioribus, Pointe-Noire, Guadalupa (Duss).

15. *Clavaria Michellii* Rea Trans. Brit. Mycol. Soc. 1903, p. 39, *Cl.* 685
fragilis Holmsk. var. *gracilis* Bolt. t. 111, f. 1 (nec Pers.). — Syll. VI, p. 721. — Fasciculata, valde fragilis, tenuis, cylindrica, flava, deorsum alba, clava 4-7 cm. alta, 1-2 mm. cr., cava, apice acuta; sporis albis, subglobosis, 3 × 2.

Hab. ad terram sub arboribus in Britannia, Italia, Germania etc. — Teste Fries est *Clavaria minima*, *nivea* Mich. N. P. G. p. 208, t. 87, f. 6.

16. *Clavaria nivea* Qué. Assoc. franc. p. l'Avanc. Sc. 1901, partie II, 686
1902, p. 496, tab. III, f. 11. — Caespitosa; clavula subfiliformi, longa, flexuosa, fragilissima, glabra, nivea, translucida, sursum acuta, subinde bifida, albo-cremea subochracea; sporis ovoideo-pruniformibus, 7-8 μ . longis, minute granulosis, hyalinis.

Hab. in pascuis montanis in Jura prope Neufchâtel, autumnno (L. FAVRE). — Affinis *Cl. fragili*.

17. *Clavaria tenerrima* Mass. et Crossl. in the Natur. 1904, p. 2. — 687
Gregaria, subtenax, farcta, candida; clavulis simplicibus, cylindricis, flexuosis, apice subattenuatis; sporis hyalinis subglobosis, apiculatis, verrucosis, 8-9 μ . diam.

Hab. in graminosis, Halifax Britanniae (C. CROSSLAND). — *Cl. fragili* Fr. affinis.

LACHNOCLADIUM Lév. — Syll. VI p. 738, IX p. 252, XI p. 139, XIV p. 239, XVI p. 209.

1. *Lachnocladium strictissimum* P. Henn. F. Amaz. I, p. 174 (Hedw. 688
1904). — Subcoriaceum, ferrugineum, strictum scopiforme, ca. 15 cm. altum, basi breve crasseque stipitatum ca. 1 cm. crassum, ramis erectis strictissimis, teretibus, ca. 2-3 cm. longis, 1 1/2-4 mm. crassis, repetito dichotomis vel verticillatis, ramulis subteretibus axillis vix compressis, erectis, apice longe subulatis, fusciculis nudis; sporis subglobosis vel ellipsoideis, levibus, 5-6 μ . hyalinis.

Hab. ad terram silvaticam, Rio Madeira ad Marmellos Amazoniæ (ULE).

2. *Lachnocladium hamatum* P. Henn. F. Amaz. I pag. 174 (Hedw. 689 1904). — Alutaceum, ca. 3-6 cm. altum, erectum, basi brevi stipitatum, ramosum, ramis subteretibus vel compressis, repetito dichotomis, ramulis flexuosis compressis sulcatis, cinereo-pruinosis, subsetulosis, curvulis apicibus cirrato-hamatis; basidiis clavatis, plerumque 2 sterigmatibus, 30-40 \times 6-7; sporis ovoideis, hyalinis vel flavidulis, 1-guttulatis, 6-7 \times 4-5.

Hab. ad terram silvaticam udam in Amazonia (ULE). — *L. cirrato* affine sed sporis aliisque notis diversum.

3. *Lachnocladium madeironse* P. Henn. F. Amaz. I, p. 174 (Hedw. 690 1904). — Alutaceo-cinereum, strictum, 5-9 cm. altum, stipitibus basi connexis vel liberis usque ad 3 cm. altis, 2 mm. crassis, ramis repetito dichotomis vel verticillatis, axillis vix compressis, ramulis teretibus divergentibus, cinereo-setulosis, apice longe subulatis; sporis subglobosis, hyalinis, 2-3 μ . diam.

Hab. ad terram v. ligna, Rio Madeira ad Marmellos Amazoniæ. — *Lachnocl. pteruliformi* affine.

4. *Lachnocladium Hoffmanni* P. Henn. Pilz. Costar. und Par. p. 147 691 (Hedw. 1904). — Incarnatum, coriaceum, ramosissimum, ca. 12 cm. altum, vix stipitatum, ramis repetito dichotomis, late compressis, divergentibus, apicibus subulatis, rarissime bifidis; stipite brevi vel radicato; sporis ellipsoideis vel subovoideis, 4-5 \times 3-4, hyalino flavescens, levibus.

Hab. ad lignum putre, Aguacata, Costarica (C. HOFFMANN). — Colore incarnato a speciebus notis mox distinctum.

5. *Lachnocladium Atkinsonii* Bresadola apud Atkinson in Journ. of 692 Mycol. 1902, p. 119. — Subcoriaceum; stipite elongato, compresso-canaliculato, pallido, tomentoso, 5-6 cm. longo, 1 cm. circ. cr., apice subquadrifido; ramis compressis, sulcatis, repetito verticillato aut dichotomo-divisis, latere sterili tomentosulis, luride ochraceis; ramulis subteretibus, apice furcatis, flavido-stramineis; sporis hyalinis vel substramineis, levibus, amygdaliformi-oblongatis vel subcylindratis 9-10 \times 4,5-5,5; basidiis clavatis.

Hab. ad Blowing Rock, N. C., Amer. bor. — Species pulchra, ambitu ramorum 6-7 cm. alta, 5-6 cm. lata, gracilitate et colore ad *Clavariam* vergens, sed hymenio unilaterali et stipite evidenter pulveraceo inter *Lachnocladia* adnumeranda.

6. *Lachnocladium mussooriense* P. Henn. Fungi Indiæ orient. II, in 693

Hedw. 1901, p. 324. — Tuberosum, fasciculato-ramosum, subrum, 6-8 cm. altum, ramis fasciato-compressis sulcatis, flexuosis, repetito dichotomis v. trichotomis in axillis paullo compressis, haud flabellatis, ramulis compressis, squarrosis, levibus, apice bifurcatis, longe subulatis subteretibus v. denticulatis; sporis ovoideis, basi oblique apiculatis, hyalinis, levibus, 7-8 \approx 4-5.

Hab. ad terram, Mussoorie, Arnigadh Indiæ orient.

7. *Lachnocladium usambarense* P. Henn. in Bot. Jahrb. 1904, p. 44. 694

— Cespitosum, pallidum, 6-8 cm. alt.; stipite compresso, plus minus elongato, basi mycelio ramoso, albido, superne repetito ramoso; ramis late compressis, axillis flabellatis, membranaceis, dichotomo ramulosis; ramulis apice subulatis vel palmatifidis, pallidis; sporis ovoideis, hyalinis, asperatis, 5-6 \approx 3-3,5.

Hab. in ramis terra dejectis supra Amani, Ost Usambara Africæ orient. (ENGLER).

8. *Lachnocladium Zenkeri* P. Henn. in Engl. Bot. Jahrb. 1901, p. 42. 695

— Syll. XVI, pag. 1116 (nomen). — Coriaceo-papyraceum, late compressum, album, pruinose, 5-7 cm. altum; stipite compresso e mycelio membranaceo cretaceo oriente usque ad 2 cm. longo, 1 mm. ex., brunneo, repetite dichotomo v. palmatifido; ramis in axillis late compressis, subflabellatis, ramulis apice membranaceis, palmatifidis v. furcatis, apicibus sæpe longe subulatis; sporis subglobosis v. ovoideis 2,5-4, levibus, hyalinis.

Hab. ad folia putrida in silvis, Kamerun Afr.

9. *Lachnocladium moniliforme* P. Henn. F. S. Paul. III, p. 198 (Hedw. 696

1904). — Stipite sublignoso, sclerotoideo, ramoso, articulo-moniliformi, extus alutaceo pruinoso, intus pallido 3 cm. alto; articulis fragilibus, subovoideis v. oblongis subteretibus 4-10 mm. longis, 3-4 mm. crassis, constrictis, ramis fasciculatis subcoriaceis, ferrugineofusculis repetito ramosis, plerumque dichotomis, divergentibus, compressis, c. 2-2½ cm. altis, apicibus subulatis; sporis ovoideis, 3-4 μ , hyalino-subfusculis, levibus.

Hab. ad terram, Serra da Cantareira, S. Paulo Brasilæ. — Species notabilis, sed in genere dubia, præcipue ex eo quod basidia non reperta.

PTERULA Fr. — Syll. VI p. 740, IX p. 255, XI p. 140, XIV p. 242, XVI p. 213.

1. *Pterula aurantiaca* P. Henn. F. Amaz. I, p. 174 (Hedw. 1904). 697

— *Tenax aurantiaca*, sicca alutacea, 4-6 cm. alta, basi fasciculata;

stipite 1-2 cm. longo, 1-2 mm. crasso, tereti, repetito dichotomo vel scopiforme verticillato, axillis compressis, ramulis subcompressis apice subulatis; sporis subglobosis vel ovoideis, hyalinis, levibus intus granulatis 5-7 \times 5-6.

Hab. ad terram paludosam, Rio Negro, Manáos Amazoniæ (ULE). — Nonnullis notis ad *Lachnocladii* typum nutat.

2. *Pterula pennata* P. Henn. F. Amaz. I, p. 174 (Hedw. 1904). — 698
Cinereo-alutacea, ca. 5 cm. alta, basi fasciculata, ramis erectis filiformibus utrinque penniformi-ramosis; ramulis recurvatis, subulosis, simplicibus, 1½-3 mm. longis, 80-120 μ . crassis; sporis ovoideis vel subpiriformibus, subangulatis, grosse 1-guttulatis, basi oblique apiculatis, hyalinis subflavidulis, 10-13 \times 7-8.

Hab. ad lignum putre, Rio Juruá, Juruá Miry Amazoniæ (ULE).

3. *Pterula nana* Pat. Champ. de la Guadeloupe, ser. III, in Bull. 699
Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Albido-rufescens (in sicco); clavulis sparsis, solitariis vel fasciculatis, duris; basidiis clavatis a basi usque fere ad summitates dispositis; sporis hyalinis, levibus, ovoideis, 7-10 \times 5-6.

Hab. in ramis putridis arborum variarum in Guadalupa (Duss). — Species exigua 1-1,5 mm. alta, vix 250 μ . crassa, *Mucronellæ* æmula.

4. *Pterula nivea* Pat. Champ. de la Guadeloupe ser. III, in Bull. 700
Soc. Myc. de France t. XVIII, fasc. II, 1902. — Omnino alba, omnino albo-nivea, in sicco rufescens; clavula gracili erecta, cylindrica, subulata, tenaci, simplici vel vix basi ramosa, pluribus in cæspitulos densos e puncto communi orientes congestis; basidiis clavatis in tota superficie partis superioris dispositis; sporis hyalinis, levibus, ovoideis 10-14 \times 8.

Hab. ad caudices putres in Guadalupa (Duss). — Fungus 10-18 mm. alt.; clavulæ 330 μ . cr. Affinis *Pter. fasciculari*.

5. *Pterula squarrosa* P. Henn. Fungi parænses II, in Hedw. 1902, 701
p. 16. — Cartilaginea, brunneola, cinereo-pruinosa, ca. 4 cm. longa; stipite subtereti, simplici, 1-2 cm. longo, 0,5-1 mm. cr., ramoso; ramis 1-2 repetito dichotomis, teretibus arcuato-reflexis, ramulis elongato-subulatis, squarrosis, usque ad 2,5 cm. longis, apice rufo-brunneolis, nudis; sporis ovoideis 3-3,5 hyalinis.

Hab. ad terram, in silvis, Pará, Amer. austr.

6. *Pterula fascicularis* Bres. et Pat. in Lloyd Myc. Not. n. 6, p. 50. 702
— Cæspitoso-fascicularis; cæspitulis parvis, 1 cm. circ. alt., 0,5 cm. basi cr.; ramulis cartilagineis, filiformibus, simplicibus v. raro

hic illic ramosis, sordide gilvis; substantia ex hyphis tenacibus, 3 μ . cr.; basidiis clavatis v. subcylindræis, 30-35 \times 9-10; sporis globosis, 9-12 μ . diam.

Hab. in insula Samoa. — *Pt. subsimplici* P. Henn. affinis.

7. *Pterula laxa* Pat. Champ. de la Guadeloupe, ser. III, in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Clavulis solitariis, sparsis, albis vel rufescentibus, simplicibus vel ramulis patulis 1-3-lateraliter auctis, 250 μ . crass. filiformibus, apice acutis, parte media fertilibus et pruinosis; basidiis clavatis; sporis . . . ?

Hab. in fragmentis putridis *Richeriæ grandis*, Guadelupa (Duss) — Fungus 5-8 mm. alt., *Pter. simplici* affinis.

PHÆOPTERULA P. Hennings, Monsunia I, 1899, pag. 9. Cfr. Syll. XVI, p. 214 (Etym. *phæos* obscurus et *Pterula*). — A gen. *Pterula* sporulis coloratis, nec hyalinis, præcipue dignoscitur.

1. *Phæopterula juruensis* P. Henn. F. Amaz. I, p. 175 (Hedw. 1904). — *Brunneola cinerescens*, ca. 1 cm. alta, basi subsimplex vel fasciculata; stipite tereti 2-3 mm. longo, hirsuto-tomentoso, repetito racemoso, ramulis filiformibus, subulatis, squarrosis, cinereo-pruinosis; sporis subglobosis, 1-guttulatis, brunneis, levibus, 4-6 μ .

Hab. ad ligna putrida, Rio Juruá, Juruá-Miry Amazoniæ (ULE). — A *Phæopt.* *hirsuta* omnino diversa, æque ac ab *Hirsutella* Pat.

TYPHULA Pers. — Syll. VI p. 743, IX p. 255, XI p. 141, XIV p. 243, XVI p. 214.

1. *Typhula bipindensis* P. Henn. in Engl. Bot. Jahrb. 1901, p. 42. — Syll. XVI p. 1116 (nomen). — Carnosa, simplex, filiformi-clavata, substipitata, fusco-rufa, ca. 3-5 mm. longa, 160-220 μ . cr., vertice rotundata, basi attenuata; basidiis clavatis, 4-sterigmaticis; sporis fusoides 5-6 \times 3, hyalinis.

Hab. in foliis putridis, Bipindi, Kamerun Afr.

PISTILLARIA Fr. — Syll. VI p. 752, IX p. 255, XI p. 141, XIV p. 243, XVI p. 215.

1. *Pistillaria Johnsonii* Massee in Kew Bull. 1901, p. 165. — Can- dida; clavulis simplicibus, erectis, levissimis, sursum albo-pruinosis, in sicco longitudinaliter rugosis, filiformibus, superne clavulatis, 2 mm. altis; sporis ellipsoideis, hyalinis, 2 \times 1.

Hab. in caule herbaceo emortuo in horto botanico Aburi, Gold

Coast Africæ occident. (JOHNSON). — Gregaria, *P. puberula* Berk. affinis.

2. *Pistillaria Quercus* Oud. Contrib. Fl. Myc. des Pays XVIII, p. 674. 707
— Albida, $800 \approx 120$, irregularis; basidiis obovatis $8-12 \approx 6-7$ tetrasporis; sporis obovatis $4 \approx 2,5$ hyalinis; sterigmatibus cylindraceis 3μ . long., paraphysibus filiformibus simplicibus vel summo bifurcatis $1-1,5 \mu$. long. obvallatis.

Hab. in foliis putridis *Quercus Roboris*, Bussum Hollandiæ.

3. *Pistillaria cæspitulos*a Sacc. in Atti Congr. bot. di Palermo 1902. 708
— Microscopica, sordide alba, hinc inde in cæspitulos aggregata; clavulis e basi communi carnosula (4-10) divergentibus, cylindraceis, apice obtusulis, sursum minutissime asperulis, $600-800 \mu$. altis, $100-130 \mu$. cr., contextu anguste prosenchymatico, carnosulo; hyphis in parte clavulæ superiore breviter exsertis et in basidia $14-16 \approx 2$, minute denticulata patula abeuntibus; sporis e denticulis oriundis, oblongo-ellipsoideis, basi apiculatis, $10-12 \approx 3$, biguttulatis, dein spurie 1-septatis, hyalinis.

Hab. in cortice emortuo *Lonicæræ Periclymeni*, Côte d'Or Galliæ. — Ab affinis *P. pusilla*, *P. diaphana* certe differt, basidiis potius denticulatis quam sterigmatophoris; tamen ad Stilbaceas referre nequeo.

4. *Pistillaria Ferryi* Qué. et Fautr. — Syll. XI, p. 141. — **P. tremula* Sacc. subsp. nov. — Vix capillaris, tenuissima, sed proportionem elongata, 3-5 mm. long. vix $80-100 \mu$. cr., tota persistenter candida, tremula et exsiccando varie tortuoso-contorta, tota longitudine fertilis et ob basidia prominentia puberula, æqualis, vix summo apice attenuata sterilis; basidiis tereti-oblongis transverse parallelis, $18-20 \approx 5-6$, sterigmatibus binis acicularibus coronatis; sporis obovoideis basi apiculatis, $8-11 \approx 3-3,5$, sæpius 1-guttulatis, hyalinis. 709

Hab. ad fructum putrem *Trichosanthis anguinæ*, ubi *Botrytis vulgaris* et *Acremoniella atra* jam viguerant, in horto botanico Patavino, febr. 1904. — In capsula vitrea se evolvit. Tota fertilis, vix ima basi parum distincta sterilis nec non summo apice hyphis paucis laxè fasciculatis formato. Tenuitate extrema vere mucedinea dignoscitur. Interdum clavulæ 2-4 basi fasciculatæ oriuntur. A typo differt colore immutato, statura minore etc.; a *P. Patouillardii* Qué. sporis multo majoribus, a *P. mucedinea* Boud., quia longior et exilior, et basidiis bisporis, a *P. at-*

tenuata, quia numquam ramosa et multo minor, ab omnibus stipite subnullo.

PHYSALACRIA Peck — Syll. VI p. 759, IX p. 256.

1. *Physalacria changensis* Rostr. in Bot. Tidsskrift-Copenhagen, 1902, 710
v. 24, p. 206. — Flavo-brunnea, caespitosa; capitulo globoso, vesiculoso-inflato, membranaceo glabro, 3-4 mm. diam., basi circulari perforato; stipite gracili, circ. 1 cm. longo; sporis ellipsoideis, minutis; cystidiis clavatis, 32 \approx 12.

Hab. in truncis, Siam Asiæ merid.

Fam. 6. Tremellaceæ

(sensu lato h. e. *Hymenomycetæ heterobasidiæ*).

SACCOBLASTIA Moell. — Syll. XIV, p. 244.

1. *Saccoblastia graminicola* Bres. Fungi Polonici, in Ann. Mycol. 711
1903, p. 112. — Late effusa, tomentosa, alba, dein straminea, ex hyphis laxè intertextis, septato-nodosis, 4-7 μ . crassis, formata; basidiis erectis, cylindraceis, 3-4-septatis, 60-90 \approx 5-6, basi sacculo obovato-elongato, 15-20 \times 8-9 sæpe præditis; sterigmatibus filiformibus, 9-15 μ . longis; sporis ovalibus, hyalinis, 8-12 \times 5-8, mox apice germinantibus.

Hab. ad gramina sicca, quæ simul conglobat, in Polonia. — Habitus omnino *Hypochni* vel *Corticii*; basidia non omnia basi sacculo prædita mult enim omnino simplicia ideoque non satis a *Stypinella* mihi videtur hoc genus distinctum et potius ceu subgenus considerandum. (Bres. l. c.).

SEPTOBASIDIUM Pat. — Syll. XI p. 118, XIV p. 215, XVI p. 184.

1. *Septobasidium fusco-violaceum* Bres. Fungi Polonici, in Ann. My- 712
col. 1903, p. 112. — Longe lateque effusum, membranaceum, ambitu fimbriato, castaneo- vel tabacino-violaceum, demum cinere-
scens; hymenio tuberculoso v. rugoso-plicato; contextu ex hyphis coloratis, subluteis, 3-3 $\frac{1}{2}$ μ . crassis conflato; basidiis cylindraceis, apice curvatis, hyalinis, 3-4-septatis, 2 $\frac{1}{2}$ -3 μ crassis; sporis hyalinis, cylindraceo-curvatis, 10-15 \times 4-5, una alterave 21 \times 6 μ .; hyphis subbasidialibus hyalinis, 2 $\frac{1}{2}$ -3 μ . crassis.

Hab. ad ramos Salicis cinereæ, in Polonia. — Species hæc

media inter *Septobasidium* et *Helicobasidium*. Habitu et consistentia membranacea *Septobasidium* refert, sed basidiis primitus non ovoideis ad *Helicobasidium* vergit. De cetero forsitan nota generica vere differentialis inter duo ista genera nondum satis elucet.

2. *Septobasidium Mariani* Bres. in Sacc. Notæ Mycol. III in Syd. 713 Ann. Mycol. 1903, n. 1, p. 24, *Hypochnus Michelianus* Cald. var. *quercinus* Sacc. olim. — Resupinatum, longe lateque effusum, contextu spongioso-molli, fusco-tabacino, ex hyphis fasciculatis, erectis, sub micr. fulvis, $4-4\frac{1}{2}$ μ . crassis, conflato; hymenio membranaceo, levi, pallide umbrino vel subspadiceo, margine fibroso-strigoso; basidiis ex obovato cylindraceis, erectis vel subcurvulis, 3-septatis, $30-40 \approx 4\frac{1}{2}-5$; sporis cylindraceo-subclavatis, curvulis, hyalinis, demum 1-septatis, $13-18 \approx 3\frac{1}{2}-5$.

Hab. in truncis vivis junioribus adhuc levigatis *Quercus pedunculatæ*, Montello (Treviso) 1870 (SACCARDO); in ramis vivis *Piri communis*, quam valde vexat, Miane (Treviso) 1902 (Ab. P. CANELLO); in ramis *Piri* et *Cratægi* in silva Cisterna prope Romam (MARIANI).

3. *Septobasidium paulense* P. Henn. F. S. Paulens II, p. 197 (Hedw. 714 1904). — Resupinato-effusum, cinereum, pruinose, contextu molle coriaceum, floccosum; hyphis ramosis, septatis, 3-4 μ . crassis, sæpe cirratis, fusciculis; sporis subglobosis v. ovoideis, 13-18 μ ., episporio subfusciculis.

Hab. ad ramos arborum, Alto da Serra S. Paulo Brasiliæ. — *Sept. velutino* affine.

PLATYGLŒA Schroet. — Syll. VI p. 771, XI p. 146, XIV p. 247, XVI p. 216.

1. *Platyglœa miedzyrzecensis* Bres. Fungi Polonici in Ann. Mycol. 715 1903, p. 113, t. III, fig. 3. — Pulvinata; pulvinulis gelatinosis, gregariis, subrotundatis vel oblongis, levibus vel demum rugoso-cerebriformibus, albis, 2-4 mm. diam. aut $2-4 \approx 1\frac{1}{2}-3$ mm. in sicco collapsis et fuscescentibus; contextu ex hyphis intricatis, laxè septatis, ad septa interdum nodosis, $1-2\frac{1}{2}$ μ . crassis, ramosis, apice basidiophoris, conflato; basidiis cylindraceis vel subclavatis, rectis vel subarcuatis, $75-200 \approx 4-6$, 3-5-septatis; sterigmatibus $50-60 \approx 4$, apice ventricosus-cuspidatis; sporis hyalinis, obovatis, apiculatis, $10-13 \approx 7-9$, lateraliter germinantibus; conidiis subglobosis, $4-5 \approx 3\frac{1}{2}-4$.

Hab. ad corticem *Ulm*i, in Polonia.

2. *Platyglœa nigricans* Schröt. — Syll. VI p. 771. — Huc, teste v. 716

Höhn. in Ann. Mycol. 1904, p. 273, spectant *Stictis Betuli* v. *nigrescens* Fr., *St. Tilice* Lasch, *Achroomyces pubescens* Riess, *Tachaphantium Tilice* Bref.

TREMELLA Dill. — Syll. VI p. 780, IX p. 258, XI p. 147, XIV p. 249, XVI p. 218.

1. *Tremella inflata* Pat. Champ. de la Guadeloupe, ser. III, in Bull. 717
soc. myc. de France t. XVIII, fasc. II, 1902. — Gelatinosa, cava,
globoso-depressa, albido-luteola, sparsa vel aggregata, levis, 3-8
mm. lata; hyphis conidiferis longis, ramosis; conidiis ovatis 1-2 μ .
longis; basidiis profunde insertis ovatis, 20-25 \approx 8-10; sterigmatibus
oblongis, subulatis; sporis ovatis levibus, 7-8 \approx 6 hyalinis.

Hab. ad lignum emortuum Guadalupa Amer. sept.

2. *Tremella rosea* v. Höhn. in Ann. Mycol. 1903, I, pag. 394. — 718
Minutissima, 250 μ , 1 mm. lata, hemisphaerica, pulvinata, sæpe
irregulariter diffuens, e roseo rufescens, gelatinoso-carnosa; hyphis
subtilibus 2-4 μ . latis, septatis, hyalinis, hinc inde ad septa nodu-
loso-incrassatis; basidiis ovoideo-globosis, cruciatim partitis 14 μ .
latis; sporis ovatis v. subsphaeroideis, 8-9 μ . cr.

Hab. in caulibus siccis Parietariæ officinalis, Vindobonæ
Austriæ.

3. ? *Tremella phyllachoroidea* Saccardo, Harrim. Alaska Exped. Crypt. 719
pag. 42, tab. III, fig. 11. — Erumpenti-adnata, epiphylla, ap-
planato-pulvinata, ambitu suborbicularis vel oblonga, 2-4 mm.
diam., 7-1 mm. crass., uda exquisite gelatinosa, superficie nigra,
opaca, minute rugulosa, intus pallidior, tota filamentosa; filamentis
seu hyphis angustissime filiformibus, 1,5-2 μ . cr., longissimis, varie
intricatis, furcatis vel varie ramosis, hyalinis, intus granulosis,
apicibus subinde lenissime incrassatis, obtusis; basidiis....; sporis....

Hab. ad folia dejecta Menziesiæ ferrugineæ, Silka Alaska
(MERTENS). — Videtur affinis *Tremellæ atro-virenti* Fr.; dubia
tamen, quia sterilis.

4. *Tremella Patouillardii* Syd. Ann. Mycol. 1903, p. 177. — Ita vo-
canda *T. inflata* Pat. Bull. Soc. myc. 1902, p. 178, nec Fr.

NÆMATELIA Fr. — Syll. VI p. 792, IX p. 259.

1. *Næmatelia* H. M. Ward in Trans. Brit. Mycol. Soc. 1899- 720
1900, p. 143, t. VI et VII.

Hab. ad folia pinea in Britannia. — Est status chlamydospo-

rus omnino peculiaris, a typo generis non param deflectens. Chlamydospore *Mycogonem* in mentem revocant.

GUEPINIA Fr. — Syll. VI p. 805, XI p. 150, XIV p. 252, XVI pag. 221.

1. *Guepinia pezizoidea* P. Henn. F. S. Paul. III, pag. 197 (Hedw. 1904). — 721
Orbiculari-pulvinata vel subcupulata sessilis, succinea, extus subvelutina, 1-2 mm. diam., basidiis linearibus 2-sterigmaticeis, 40-50 \approx 3-4; sporis cylindraceutis, curvatis, 3-septatis, loculis 1-guttulatis, hyalinis, 12-14 \approx 4-5.
Hab. ad ramos putres, Alto da Serra, S. Paulo Brasilæ. —
Guep. Pezizæ affinis, sed omnino sessilis extusque subvelutina.
2. *Guepinia juruensis* P. Henn. F. Amaz. I, p. 171 (Hedw. 1904). — 722
Pileo subgelatinoso, sicco corneo, spatulato vel flabelliformi erecto, margine crenulato ciliatoque v. inciso-lobato; superne tomentoso ferrugineo, pilis flexuosis, cirratis, hyalino-fusculis, 10-25 \approx 3-3½; hymenio castaneo levi, 3-12 mm. longo latoque; stipite subtereti, ferrugineo-velutino, 3-12 \approx 1-1½; sporis subcylindraceutis curvulis, obtusis, 3-septatis, hyalinis.
Hab. ad truncos emortuos, Rio Juruá, Bom Fim Amazoniæ (ULE). — Species prædistincta, *Polyporum* quendam spathulatum v. *Stereum obliquum* in mentem revocans; *Guep. dilatata* forte affinis.
3. *Guepinia monticola* Tracy et Earle in Plantæ Bakerianæ fasc. I, 723
fungi p. 23. — Cupulata ferruginea, breve stipitata, expansa, in sicco revoluta, 3-8 mm. diam., externe sulcato-costata; setulis inflatis, 50 μ . longis, basi 20-25 μ . cr. vestita; hymenio compacto, cylindrico, basidiis luteolis, 40-50 \approx 3,5 superne bifurcatis, composito; sporis cylindraceutis, curvulis, continuis (?), guttulatis, 12-16 \approx 4, sterigmatibus filiformibus, circ. 10 μ . longis.
Hab. in ligno decorticato Piceæ Engelmanni, Glide Rock Cañon, South Colorado, Amer. bor.
4. *Guepinia lutea* Bresadola, Harrim. Alaska Exped. Crypt. p. 42. — 724
Gregaria v. subcæspitosa, tremellosa-tenax, flavo-lutea; conceptaculis cupulari-stipitatis; cupula glabra, complanato-concava, margine sinuoso, disco hymeniophoro, 2-5 mm. lata; stipite 1-4,5 mm. longo, 5-1 mm. crasso, basi demum fusciculo; basidiis cylindraceutis, apice subcapitatis, 45-50 \approx 3-4, bifidis; sporis subcylindraceutis, subcurvatis, 5-9-septatis, 18-20 \approx 6-7.
Hab. ad truneos, Orca et Lowe Julet B. C. Alaska (TRELEASE).

— *Guepinia merulinæ*, cujus gaudet structura, affinis; differt cupula et stipite levibus nec non sporis majoribus magisque septatis.

5. *Guapinia alpina* Tracy et Earle in Plantæ Bakerianæ fasc. I, fungi 725
p. 23. — Cupulata, breve stipitata; disco luteo-aurantiaco, in sicco 6 mm. diam, margine leviter involuto; stipite pruinoso, 3 mm. alto, setulis inflatis, $50 \approx 16$, simplicibus vel 1-septatis, non constrictis, minute rugulosis; hymenio compacto; basidiis granulis luteis repletis, subsimplicibus, inferne bifurcatis, $40 \approx 3,5$; sporis oblongis, continuis, immaturis $12 \approx 4$

Hab. in lignis dejectis Piceæ Engelmanni, Glide Rock Cañon, South Colorado, Amer. bor.

EXIDIA Fr. — Syll. VI p. 772, IX p. 257, XI p. 146, XIV p. 249, XVI p. 217.

1. *Exidia minutissima* v. Höhn. Ann. Mycol. 1904, p. 38. — Minu- 726
tissima, rotundata, verruciformis v. oblonga, hinc inde confluens, e cæsis vel griseo in colorem albidum v. hyalinum vergens, subgelatinosa, 70-120 μ . lata; hyphis radiantibus, dendroideo-v. coralloideo-ramosis, hyalinis. $1-1\frac{1}{2}$ μ . crassis, in apice sæpe globoso-incrassatis; basidiis ovoideis, supra truncatis, cruciatim partitis, $8 \approx 7$, sterigmata quatuor, flexuosa, $10 \approx 1,5$ gerentibus; sporidiis oblongis, rectis, uno latere subdepressis, supra rotundatis, infra lateraliter et oblique apiculatis, granuloso-farctis, $5-8 \approx 2-3\frac{1}{2}$, sæpe $5-7 \approx 2-3$.

Hab. in ligno carioso Fagi in silvis ad Wassergesprenge, Wiener Wald Austriæ inferioris mense Octobri anno 1903. — Species quoad genus dubia.

ULOCOLLA Bref. — Syll. VI p. 777, XVI p. 218.

1. *Ulocolla badio-umbrina* Bres. Fungi Polonici in Ann. Mycol. 1903, 727
p. 115. — Receptaculo primitus tuberculiformi dein pulvinato et gyroso-cerebriformi, gelatinoso, parvo, 3-6 mm. lato, lateritio-badio v. badio-umbrino, sæpe confluenti, exsiccano collapsa, levi; sporis hyalinis, cylindraceo-curveis, $12-14 \approx 4\frac{1}{2}-5$; conidiis baculiformibus, $3 \approx 1$; basidiis obovatis, $12-18 \approx 9-12$; hyphis ramosis, 2 μ . circiter crassis.

Hab. ad ramos corticatos Salicis cineræ et Alni glutinosæ, in Polonia. — Sporas quoque vidi lateraliter germinantes, promycelium breve emittentes, apice conidium parvum, subglobosum gerens.

TREMELLODENDRON Atkins. Journ. of Mycol. 1902, p. 106 (Etym. *Tremella* et *dendron* arbor). — A *Sebacina* differt præsertim, quia non incrustans et quia contra est libera, ascendens et dendroidea.

1. *Tremellodendron candidum* (Schw.) Atk. l. c., *Merisma candida* Schw., *Telephora candida* (Schw.) Fr. — Syll. VI p. 535.
2. *Tremellodendron Schweinitzii* (Peck) Atk. l. c., *Thelephora Schweinitzii* Peck — Syll. VI p. 534.

SEBACINA Tul. Ann. Sc. nat. Bot. XV, p. 223 (1871) — Syll. VI p. 521, XI p. 117, XIV p. 13 et 214, XVI p. 183 (Etym. *sebum*).

1. *Sebacina podlachica* Bres. Fungi Polonici in Ann. Mycol. 1903, 728 pag. 117. — Late effusa, arcute adnata, crassiuscula, gelatinosa, e pallido-cerulea cæsio-hyalina; hymenio sublevi vel parum undulato; sporis hyalinis, subpiriformibus v. subcylindraceis, uno latere depressis, 7-9 \times 4-5; basidiis obovatis, 9-10 \times 6-8, 2-4-sterigmaticis; sterigmatibus usque ad 40 μ . longis; hyphis conglutinatis, 1-1 $\frac{1}{2}$ μ . crassis.

Hab. ad ligna Betulæ, in Polonia.

HIRNEOLINA (Pat.) Bres. in litt., *Eichleriella* Bres. Fungi Polonici in Ann. myc. 1903, pag. 116, *Sebacina* sect. *Hirneolina* Pat. Essai taxon. 1900, p. 25, f. 17 (Etym. *Hirneola*, cui affinis). — Fungi membranaceo-ceracei v. membranaceo-subgelatinosi, cupulares vel plano-concavi, raro penduli. Hymenium typice superum, discoideum, tantum in formis pendulis inferum, leve v. subrugulosum. Basidia globoso-ovoidea, cruciatim partita, 2-4-sterigmatica. Sporæ hyalinæ, cylindraceæ, subcurvulæ. Est *Stereum* vel *Cyphella* fructificatione tremellacea.

1. *Hirneolina incarnata* Bres. in litt., *Eichleriella incarnata* Fungi Polonici in Ann. Mycol. 1903, pag. 116, t. III, f. 1. — Receptaculo membranaceo, expanso-resupinato, oblongo v. subrotundato, margine demum libero, revoluti, sericeo, pallido, subumbrino, 1-3 cm. lato, ex hyphis contextis, horizontaliter positus, 2-4 μ . crassis conflato; hymenio levi v. subruguloso, membranaceo-subgelatinoso, pallide roseolo; basidiis obovatis, longitudinaliter partitis, 2-4-sterigmaticis, 16-21 \times 10-13; sporis hyalinis, cylindraceo-curvulis, demum spurie 1-3-septatis, 13-18 \times 5-6; hyphis subbasidialibus, 2 μ . crassis, mox horizontalibus.

Hab. ad ramos arborum frondosarum et Berberidis vul-

garis. — E forma valde *Cyphellæ flocculentæ* (Fr.) accedit, cum qua forte hucusque confusa; etiam *Stereo ochroleuco* Fr. sat similis.

2. *Hirneolina leucophæa* Bres. in litt., *Eichleriella leucophæa* Bres. 730

l. c. t. III, f. 2. — Receptaculo membranaceo, erumpenti, cupuliformi, sæpe pendulo, libero, raro late expanso et stereiformi, fusco-umbrino, villosa-tomentoso, ex hyphis horizontalibus, 3 μ . crassis, conflato, 5-12 cm. lato; hymenio levi, membranaceo-ceraceo, subgelatinoso, pallido; basidiis longitudinaliter partitis, obovatis, 2-4-sterigmaticis, 18-27 \times 9-12; sporis hyalinis, cylindraceo-curvulis, demum spurie 1-3-septatis, 14-18 \times 5-5½; hyphis subbasidialibus, 2-3½ μ . crassis.

Hab. ad ramos Carpini Betuli in Polonia. — Specimina hujus speciei, ex agro lipsiensi a cl. Winter missa, etiam in meo herbario sub nomine *Sterei ochroleuci* Fr. inveni.

HETEROCHÆTE Pat. — Syll. XI p. 144, XIV p. 247.

1. *Heterochæte europæa* v. Höhnelt in Ann. Mycol. 1903, I, p. 393. 731

— Fungus late effusus, e carneo pallidus, fere hyalinus, gelatinoso-translucens, supra levis vel (in statu sicco) hinc inde rugis elevatis præditus, tomento albo velutinus, floccis sæpe planis, ex hyphis hyalinis, 3 μ . crassis, parallele conglutinatissimis formatissimis, supra sæpe fimbriatis, 200-400 μ . longis, in basi 40-100 μ . latis, acutiusculis; basidiis biseriatis, globoideo-ovatis, cruciatim partitis, apice sterigmata 4-gerentibus, 16 \times 12; sporis cylindraceo-curvulis, granuloso-guttulatis, hyalinis, continuis, 16 \times 6-8.

Hab. ad Fagi corticem levem in valle Schedinaz pr. Jaize, Bosniæ.

TULASNELLA Schroet. — Syll. VI pag. 625, XIV pag. 234, XVI pag. 202.

1. *Tulasnella Eichleriana* Bres. Fungi polonici, in Ann. Mycol. 1903, 732

p. 113. — Longe lateque effusa, tenuis in vegeto subgelatinosa, cinereo-violacea, in sicco furfuracea, pallide roseola; hymenio scabriusculo; sporis (conidiis sec. Juel) hyalinis, subglobosis vel obovatis, 3½-5 \times 3-3½ lateraliter germinantibus et sporam secundariam (sporidiolum) gignentibus; basidiis obverse obovatis vel clavato-subcapitatis, 12-13 \times 5-6; sterigmatibus (sporis sec. Juel) quaternis, ex ovoideis apice elongato-subulatis; hyphis hyalinis, septatis 2½-3½ μ . crassis.

Hab. ad ligna putrescentia Betulæ, in Polonia.

2. *Tulasnella pallida* Bres. Fungi Polonici, in Ann. Mycol. 1903, 733 p. 114. — Late et interrupte effusa, tenuissima, in vegeto subgelatinosa, hyalina, in sicco pallida, hymenio sublevi; sporis hyalinis, obovato-elongatis vel subpiriformibus, raro apice subapiculatis tuncque subfusoides-ventricosus, $8-14 \times 4\frac{1}{2}-6\frac{1}{2}$; basidiis obverse obovatis, $10-14 \times 8-10$; sterigmatibus bene evolutis, basi subfusiformibus, apice subulatis; hyphis hyalinis, septatis, 4-6 μ . cr.; sporis secundaris quoque observatis.

Hab. ad ramos corticatos arborum frondosarum, in Polonia. — Sporis interdum utrinque attenuatis ad *Tulasnellam violaceam* accedit.

3. *Tulasnella pinicola* Bres. Fungi Polonici, in Ann. Mycol. 1903, 734 p. 114. — Late et interrupte effusa, tenuis, in vegeto gelatinosa hyalina, in sicco subcartilaginea et fusca; hymenio sublevi, undulato dein collapse; sporis obovatis, uno latere subcompressis, hyalinis, $8-10 \times 5-6$, lateraliter germinantibus et sporam secundariam (sporidiolum) gignentibus; basidiis clavato-capitatis vel obovatis, $12-21 \times 8$, 1-4-sterigmaticis, sterigmatibus demum valde productis, basi obovatis; hyphis hyalinis, septatis, 2-4 μ . cr.

Hab. ad ligna Pini silvestris, in Polonia. — A *Tulasnella incarnata* (Tul.) Juel colore et sporis diversa.

4. *Tulasnella violacea* (Joh. Ols.) Juel — Syll. XIV p. 235 var. 735 lilacea Bres. Fung. Polonici in Ann. Mycol. 1903, p. 114.

Hab. ad ramos corticatos arborum frondosarum, in Polonia. — A typo differt colore in vegeto lilacino, in sicco pallescente et sporis $8-14 \times 5-7$. Sporæ, ut in typo, fusoides, utrinque apiculatæ, hilaliter germinantes et sporam secundariam, obovatam, 10×7 , gignentibus; basidia obovata, $12-13 \times 8-10$; hyphæ septatæ, 4-6 μ .

5. *Tulasnella calospora* (Boud.) Juel loc. cit. pag. 23. — Syll. XIV p. 235 — *Prototremella* Boud. Journ. de Bot. 1896, p. 85 c. fig.

Hab. quoque ad ligna mucida Quercus, in Polonia. — Sporæ in hoc specimine polonico, $26-45 \times 4-6$, ut in typo, fusoides et sæpe flexuosæ; basidia clavato-subcapitata, 12×9 ; sterigmata 2-4, demum basi late obovata et longe subulato-producta; hyphæ 3-6 μ . crassæ (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 114).

DACRYOMYCES Nees — Syll. VI pag. 796, IX p. 259, XI p. 148, XIV p. 252, XVI p. 220.

1. *Dacryomyces tristis* Pat. in Duss Enum. champ. Guadel. 1903, 736

p. 11. — Olivaceo-virens, gelatinoso-mollis, sessilis, subglobosa, cerebriformis; hymenio amphigeno; basidiis cylindricis, furcatis, $35-40 \times 5-6$; sporis incoloribus ovoideis, basi tenuatis, continuis, $9-12 \times 4-6$.

Hab. ad ligna putrida, Basse-Terre, Guadalupe (Duss). — Fungus 4-10 mm. diam., sparsus v. confluens et tunc massam 1-2 cm. longam formans.

EUCRONARTIUM Atkinson in Journ. of Mycology 1902, vol. 8, p. 107 (Ety. *Eu* bene et *Cronartium*). — Fungilli plus minusve erecti, filiformes, columnares, in sicco duri, subgelatinosi; hymenium lateraliter tectum vel expositum. Basidia curva vel flexuosa, tenella, transverse divisa, 4 sterigmata (raro 3 vel 5) gerentia; sporæ continuæ, albo-hyalinæ. — Habitus *Typhulæ muscicolæ* (Pers.) Fr.

1. **Eucronartium typhuloides** Atkinson l. c. — Albidum, filiforme, 737 conicum, gradatim curvulum, basi tenellum, 10-15 mm. altum, 0,5-1 mm. crassum, interdum pro columnis confertissimis subanastomosantibus videtur clavulatum, longitudinaliter sulcatum, generaliter sparsum; basidiis curvulis, plus minusve sinuosis, 3-5-septatis, $25-40 \times 6-9$; sterigmatibus flexuosis, elongatis, $10-20 \times 3-4$; sporis fusoideis, curvis vel inæquilateraliter granulosi, $18-24 \times 3,5-5$.

Hab. in foliis vivis muscorum, in silvis Cascadilla, Ithaca, Amer. bor. (H. H. WETZEL).

GASTEROMYCETÆ *)

Syll. Fung. VII p. 1, IX p. 262, XI p. 152, XIV p. 254,
XVI p. 224.

Fam. 1. Phallaceæ Fr.

ITHYPHALLUS Fr. — Syll. VII p. 8 et 469, IX p. 262, XI p. 153,
XVI p. 1118.

1. **Ithyphallus impudicus** (F.) Fr. — Syll. VII, p. 263. — var. **car-** 738
neus Lemmermann in Abh. Nat. Ver. Brem. 1901, p. 183 c. iconē.
— A typo differt quia minor (9 cm. alt.) carneus; sporis paullo
minoribus, $2,7-4 \times 1,3-1,5$ (nec 4×2), tereti-subpiriformibus, chlo-
rinis.

Hab. in dumetis insularum Frisiæ orient.

2. **Ithyphallus sanguineus** (P. Henn.) Sacc. et D. Sacc. *Phallus san-* 739
guineus P. Henn. in Engl. Bot. Jahrb. 1901, p. 57. — Syll. XVI,
p. 1118 (nomen). — Altus 10-13 cm.; stipite utrinque attenuato
1,5-2 cm. crasso, incarnato, cavo pariete e 2-3 (apicem versus e
1-2) stratis composito, volva lobata pallida; pileo ovoideo-clauso,
haud limbo, ca. 2-2,5 cm. alto latoque; sporis oblonge ellipsoi-
deis $3,5-4,5 \times 1,5$ hyalino-chlorescentibus.

Hab. in silvis udis ad radices, Kamerun Afr.

BLUMENAVIA Möller — Syll. XI p. 154.

1. **Blumenavia usambarensis** P. Henn. Fungi Afr. orient. II, p 37, 740
in Bot. Jahrb. XXVIII, pag. 37. — Receptaculo oblongo-ova-
to, ca. 8 cm. alt., 2,5-3 cm. lato (in alcoole), e 5 ramis verti-
calibus, pluristratosi consistente; ramis subquadrangularibus vel

*) Conferendæ sunt contributiones variæ recentiores de Gasteromycetis el-
viorum BUCHOLTZ, ED. FISCHER, P. HENNINGS, L. HOLLOS, C. G. LLOYD, O.
MATTIROLO, L. PETRI, WHITE, ubi plurima genera et species tam morphologicæ
quam systematicæ illustrantur vel emendantur.

triangularibus superne attenuatis, ca. 5-6 mm. latis, ca. 1 cm. latis, extus transverse lamelloso-favosis, rugulosis, albidis, intus lateraliter appendicibus membranaceis triquetris vel dentiformibus, interdum incis, usque ad 5 mm. diam., glebam olivaceo-atram sustinentibus præditis; sporis subcylindræis, hyalinis, $3-3,5 \times 1,5$; volva irregulariter lobata, extus pallida, subolivaceo-maculata, 3, 5-4 cm. diam.; mycelio radiceiformi, ramoso, pallido.

Hab. ad terram Usambara in Afr. orient. (SCHEFFLER, KUMMER).

CLATHRUS (Mich.) L. — Syll. VII p. 18, IX p. 264, XI p. 154, XIV p. 225, XVI p. 228.

1. **Clathrus** (*Clathrella*) **Baumii** P. Henn. in *Ergebn. der Kunene-Sambesi Expedit.* pag. 164 (1902). — Receptaculo oblongo-ovoideo, reticulato, basi attenuato substipitato e 5-6 ramis partito, 6-10 cm. alto, 3-5 cm. lato, flavo-aurantio, ramulis teneris 1-stratosi, fistulosis, fasciatis, plicatulis, 2-2,5 mm. latis, in axillis verrucam ferentibus pulpa sporarum atro-violacea tegentem interstitiis polyhedricis oblongis 5 mm. 2 cm. longis, 5 mm. 1 cm. latis; sporis oblonge fusoides v. cylindræis, $4-5 \times 1,5$ hyalinis; volva tenui papyracea, albida, lobata, mycelio albido. Fœtens.

Hab. in silvis Longa prope Mapalanka Africæ austr. — *Cl. camerunensi* et *Cl. chrysomycelino* affinis.

DICTYOBOLÉ Atkins. Bot. Gaz. 1902, p. 43 (Etym. *dictyon* rete et *bole* jactus). — Fungus stipitatus, volvatus et pileatus; stipes cavus e pariete concamerata formatus, apice pileo parum evoluto, gleba tecto coronatus. Gleba dimorpha, pars apicalis laminis radiantibus copiosis, brevibus sterilibus percursa, inferior demum in lobos irregulares convolutos subclathratos partita. Sporæ unicellulares, leves, pallide olivaceo-brunnæ.

1. **Dictyobolè texensis** Atkins. et Long. l. c. f. 3. — Initio subterranea, dein emergens, 7-10 cm. alt.; stipite albido-cremeo crasse cylindrico, deorsum leniter tenuato; pileo apice impervio, gleba avellanea, dein nigra; radiis 8-16, superficie rugosis, senio subreticulatim divis; sporis irregulariter ovoideis, $3-4 \times 2-3$, olivaceofuscis; volva lata, alba, circumscissa, basi radicante.

Hab. in solo arenoso, Denton Texas Amer. bor. — Planta vegeta fortiter, nec ingrate olet. Ad Clathreas spectat.

LYSURUS Fr. — Syll. VII p. 22, IX p. 264, XVI p. 229.

1. *Lysurus borealis* (Burt.) P. Henn. *Anthurus borealis* E. A. Burt. 743
Syll. XI, pag. 155. — var. *Klitzingii* P. Henn. in Hedw. 1902, p. 178. — Mycelio filiformi v. radiceiformi, ramoso, albido; exoperidio primo subgloboso dein ovoideo-ellipsoideo usque ad 3 cm. longo, 2,5 cm. lato, volva extus albida, papyracea, medio gelatinosa, intus membranacea, alba, longitudinaliter striis 5-7 incrassata, 2-5 irregulariter lobata; stipite clavato, basi valde attenuato, ad apicem usque ad 2 cm. incrassato, 2-7,5 cm. longo, intus omnino cavo, extus albido reticulato-celluloso, pariete inferne 1-2, superne 3-stratoso, apice annulato-subincrassato, in lacinias 5-7 anguste lanceolatas diviso; ramis medio longitudinaliter sulcatis, sulco ad apicem late planeque nudo, albo subsericeo, sed ubique extra basim introrsum transverse rugosis, albidis, massa castanea sporarum vestitis, deinde liberis, separatis, erectis, apice obtusis v. subacutis 1-2,8 \approx 0,4-0,5 cm.; basidiis oblonge clavatis, continuis; sporis 5-8 ellipsoideo-subfusoides, hyalino-chlorinis 3,5-4 \approx 1,5-2,

Hab. in arenosis cultis Ludwigslust-Mecklemburg (H. KLITZING).

ANTHURUS Kalchbr. — Syll. VII p. 23, XI p. 155.

1. *Anthurus trifidus* Har. et Pat. Champ. rec. au Japon, in Bull. du Mus. d'hist. nat. 1902, n. 2, p. 132. — Stipite cavernoso, volumine non superante, stipiti adpressam et æquilongam, cylindraco, brevissimo, 2 cm. circ. alto, 1 cm. diam., apice in tres lacinias elongatas, acutas, sursum attenuatas, erectas et paulum ad centrum incurvas, 5 cm. longas, diam. basi 1½ cm., dorsaliter leviter canaliculatas, intus rugulosas et fructiferas, sectione triangulares, diviso.

Hab. ad terram, Tokyo Japoniæ (HARMAND).

Fam. 1. Nidulariaceæ Fr.

CYATHUS Hall. — Syll. VII p. 32, IX p. 226, XI p. 156, XIV p. 256, XVI p. 229.

1. *Cyathus hirsutus* (Schäff.) Sacc. *C. striatus* Willd. — Syll. fung. 745 VII, p. 33, *Cyathia hirsuta* (Schäff.) White *) The Nidul. of N.

*) Nomen *Cyathia* P. Browne, Civ. and Nat. Hist. Jamaica, pag. 78 (1756),

Amer. in Bull. Torr. bot. Cl. 1902, p. 259, var. *infundibuliformis* White l. c. p. 261, pl. 14, f. 15. — A typo differt peridio omnino infundibulari, sparse strigoso-piloso; sporis 14-17 \approx 8-12.

Hab. in foliis et muscis, Montana Amer. bor.

2. *Cyathus durus* White l. c. p. 261, pl. 14, t. 16-19 (*Cyathia*). — 746

Peridiis late patenti-infundibuliformibus, 8-13 mm. alt., 8-12 mm. latis (apice), 2-4 mm. lat. (basi), extus brunneo-griseis, squamuloso-rugosis, vere duris, sed fragilibus, pariete interiore sordide albido, sulcis latiusculis exarato, orificio margine reflexo, radiatim inciso, sed non fimbriato, peridii basi contracta et sæpius fasciculis myceliaribus cincta; sporangiolis sordide griseis ovoideis v. globulosis, 2,5 mm. long., 1,5 mm. cr.; sporis 14-18 \approx 8-10, hyalinis, crasse tunicatis.

Hab. ad terram, Denver Colorado Amer. bor. — Duritiæ et fragilitate peridii dignoscenda species.

NIDULA White l. c. p. 271 (1902) (Etym. *nidus*). — Peridium membranâ homogenea, sed stratosâ, initio supra orificium peridii continuâ formatum. Sporangiola copiosissima, initio substantia glutinosâ immersa, dense stipata, cavitatem omnino implentia parieti peridii non adnexa. Sporæ filamentis nullis mixtæ.

1. *Nidula candida* (Peck) White. l. c. *Nidularia candida* Peck — Syll. XI, p. 156.

2. *Nidula microcarpa* Peck ap. White l. c. pag. 272, pl. 17, f. 1-6, 747
pl. 18, f. 14-15. — Peridiis 4-6 mm. alt., 4-5 mm. lat. (apice), 3-5 mm. lat. (basi), subcylindricis, extus albidis v. pallide flavidis, minute tomentosis, firmis, pariete interiore levi, e materie glutinosa exsiccata subnitentibus, orificio integro erecto et firmo; sporangiolis copiosissimis, lenticularibus, striato fibroso crasso dein secedente obtectis, siccis rugosis, udis levibus, rufo-brunneis, 0,5-1 mm. lat.; sporis 6-9 \approx 4-6, late ellipsoideis v. subglobosis.

Hab. ad ligna et terram in California et Montana (DUDLEY et WILLIAMS) Amer. bor. — Var. *rugispora* (Ell. et Ev.) White l. c. p. 272, pl. 17, f. 7-9: a typo differt orificio dilatato-recurvato et minute fimbriato-lacero; sporis paullo crassioribus 6-9 \approx 4-7. In ramis emortuis, Skamania Washington Amer. bor. (SUKSDORF),

White The Nidular. of N. Amer. in Bull. Torr. Bot. Cl. 1902, p. 255, est antèrius quam *Cyathus* Hall. sed omnino obsoletum dum *Cyathi* nomen a 150 annis est ubique acceptum, adhibitum et usu universali sanctum.

NIDULARIA Fr. — Syll. VII p. 28, IX p. 265, XI pag. 156, XIV p. 256, XVI p. 229.

1. **Nidularia castanea** Ell. et Everh. herb. *Granularia castanea* White 748
l. c. p. 276, pl. 17, f. 17-19, pl. 18, fig. 20 *). — Peridiis minutis, elongato-globosis v. subsphæricis, sessilibus, interdum confluentibus, 0,5-2 mm. latis, 0,5-1 mm. alt.; tunica peridiali tenuissima et fragili, flavido-fulva, demum griseola, ob pressionem sporangiorum sæpe tuberculosa, irregulariter dehiscens; sporangiolis flavido-brunneis copiosissimis, densis, globoso-depressis, 0,25 mm. diam., sublevibus; sporis subglobosis, hyalinis, crasse tunicatis, 4-7 \approx 3-6.

Hab. gregatim ad ligna, Newfield N. J. Amer. bor.

2. **Nidularia rudis** Peck ap. White l. c. pag. 277, pl. 17, f. 21-23 749
(sub *Granularia*). — Peridiis hemisphæricis v. subglobosis, sessilibus, indehiscens v. sensim hinc inde fatiscentibus, tunica tenui, levi, sicca fragili, cellulosa, uda subgelatinosa, flavido-brunnea, ad griseum vergente; sporangiolis paucis, irregularibus, angulosis v. compressis, 2-2,3 mm. diam., nigricantibus v. virentibus sporis late ellipsoideis v. subglobosis, hyalinis, 7-9 \approx 6-8.

Hab. in lignis putrescentibus, California (W. R. DUDLEY).

3. **Nidularia Heribaudii** Har. et Pat. Bull. Soc. Mycol. 1904, p. 63. 750
— Peridio globoso, albido, villosa, membranaceo, crassiusculo, 5-6 mm. lato, superne sæpe depresso et rimose dehiscens, intus plumbeo; sporangiis parum numerosis, majusculis, 2-3 mm. reniformibus, v. lentiformibus, glabris, cinereis, levibus, tunica crassiuscula præditis; trama alba, linea hymeniifera obscuriori centro percursa; sporis ovoideis, ad basim attenuatis, 10-11 \approx 7.

Hab. gregatim in ramis abiegnis pr. Durtol Arvernæ (HÉRIBAUD). — Sporangii magnis, paucis, plumbeis etc. præsertim dignoscitur.

SPHÆROBOLUS Tod. — Syll. VII p. 46.

1. **Sphærobolus dentatus** (With.) W. Sm. in Journ. of Botany 1903, p. 280. Huc ducenda est *Nidularia dentata* With. — Syll. VII, p. 31. — Peridio externe dilute fulvo v. vinoso brunneo v. brun-

*) Genus *Granularia* Roth in Ust. Ann. bot. I, pag. 6 (1791) a sæculo et amplius omnino obsolevit, dum *Nidularia* nomen ubique jugiterque adhibetur et est usu universali sancitum.

neo, interne albo vel eburneo vel albido-griseo; sporangiolis rubello-brunneis 16 μ . diam.

Hab. quoque in Sambuco emortuo, Failand, Somerset Britanniae.

Dubiae sedis.

MICHENERA B. et C. — Syll. VI p. 652, XI p. 230.

1. *Michenera Rompelii* Rick, Ann. Mycol. 1904, p. 243. — Erum- 751
pens; pezizaeformis usque ad 0,8 cm. lata, oblique sessilis, extus straminea, subpruinosa, intus albida; hymenio tumefacto turgido, subgelatinoso, butyraceo; sporis usque ad 20 μ . diam., globosis, endo et exosporio lucem egregie refringente.

Hab. in ligno arido St. Leopoldo, Rio grande do Sul Brasiliae.

Fam. 3. Lycoperdaceæ EHRENB.

SECOTIUM Kunze — Syll. VII p. 51, IX p. 266, XI p. 157, XIV p. 257.

1. *Secotium arizonicum* Shear et Griff. in Bull. of the Torr. Bot. 752
Club. 1902, p. 450. — Peridio subgloboso vel subpiriformi pallide albido-luteo, levi 2-4 cm. alt., 1,5-3 cm. diam., in sicco, constricto fragili, sessili vel raro brevi-stipitato, apice irregulariter dehiscente; columella non bene evoluta; gleba initio lutea, maturitate brunnea, marmorata; sporis sphaericis vel subglobosis, pallide cremeo-albidis, levibus, guttulatis, 8-12 μ . diam., breve pedicellatis.

Hab. prope Tucson, Arizona, Amer. bor.

2. *Secotium andinum* Speg. Mycet. argent. ser. II, 1902, p. 55. — 753
Caespitosum, albo-ochraceum; peridio irregulariter subgloboso 10-35 mm. diam. et alt., levi, glabro, superne obtuso non vel vix umbilicato, inferne non v. modice excavato, subsuberoso-carnoso, primo integro dein irregulariter dehiscente; stipite erecto, subcylindraceo 10-50 mm longo, 6-10 mm. diam., concolore levi vel rugoso-sulcato, glabro; gleba olivacea, compactiuscula ac minute alveolato-spongiosula; sporis ex ovato subsphaeroideis, minute rostellatis 15-20 \approx 12-20, levibus v. obsolete subrugulosis, chlorinis.

Hab. ad radices Patagonii pinifolii secus Rio Tupungato prope Mendoza in Argentina. Species magnitudine sporarum ab omnibus adhuc cognitis longe recedens.

3. *Secotium Rodwayi* Massee in Kew Bull. 1901, p. 158. — Peridio 754
2-3 cm. lato, globoso-depresso, tomentoso, ochraceo-albido, inferne profunde excavato; sporis globosis, verruculosus, subhyalinis, plerumque stipitatis 7-8 μ . diam.; stipite brevissimo, primitus infra furfuraceo, cavo.

Hab. ad terram in Tasmania (Rodway).

ELASMOMYCES Cavares — Syll. XIV p. 258.

1. *Elasmomyces krjukowensis* (Buch.) Sacc. et D. Sacc. *Secotium* Bu- 755
choltz in Ann. Mycol. 1903, p. 159, t. V, Hedw. 1903, pag. 314, Beitr. Hypog. p. 143, t. III, f. 1-10. — Globosus v. irregularis, hypogæus sive erumpens, c. 3 cm. diam., superficie levis, candidus; stipitello in fossula sito et in glebæ columellam producto; columella et excipulo et cellulis sphaericis nidi modo dispositis et ex filamentis contextis compositis; gleba venis tramæ gyrosis, multiloculari, aurantiaca, initio ad basim columellæ aperta sive excipuli margine oblecta, initio ad basim columellæ aperta sive excipuli margine oblecta, dein clausa; hymenii basidiis et cystidiis paucis; basidiis 2-4-sporis; sporis sphaericis, regularibus, 8,7-11,6 μ . diam., spinulosis, dilute ochraceis, jodi ope cærulescentibus; fungi odore dulci.

Hab. sub terra, Station Krjukowo in prov. Mosquensi Rossia.

2. *Elasmomyces michailowskjanus* (Buch.) Sacc. et D. Sacc. *Secotium* 756
Bucholtz Ann. Myc. 1903, pag. 171, tab. V, f. 11, Hedw. 1903, p. 314, Beitr. Hypog. p. 143, t. III, f. 11. — Hypogæus, globosus, minor, circ. 1 cm. diam., rufescens, habitu tuberis rufescentis; gleba griseo-ochracea, multiloculata; columella crassiuscula, structura ut in *El. krjukowensi*; hymenii cystidiis acutis; sporis forma et reactione ut in dicta specie.

Hab. sub terra in prov. Mosquensi prope Michalowskoje, in Rossia.

CAULOGLOSSUM Grev. — Syll. VII p. 57.

1. *Cauloglossum transversarium* (Bosc) Fr. — Syll. VII, p. 57, Cl. 757
Johnston in Proceed. Amer. Acad. 1902, p. 70 c. tab., observans quod genus *Cauloglossum* ut plurimum synonymon est *Podaxi*, speciem prædictam novo nomine *Rhopalogasteris* salutatur; tamen rectius videtur in gen. *Cauloglossum* char. emend. retinere.

PODAXON (Desv.) Fr. — Syll. VII p. 58, IX p. 267, XI p. 158, XIV p. 257, XVI p. 232.

1. **Podaxon Mülleri** P. Henn. F. Austral. II, p. 187 (Hedw. 1904). 758

— Peridio albido-isabellino, squamoso, basi irregulariter dehiscente, ca. 8 cm. longo, 3 1/2 cm. lato, apice rotundato; stipite cylindraceo, pr. p. membranaceo-squamoso, basi subincrassato, 6-7 cm. longo, 8 mm. crasso, gleba cinereo-olivacea; filis capillitii fasciatis, flexuosis, flavo-brunneis, plerumque 5-10 μ .; sporis ellipsoideis vel subovoideis, apice rotundatis vel subapplanatis, subincrassatis, late brunneis, ca. 10-16 \times 10-12.

Hab. ad terram, Gascogne River Australiæ (F. v. MÜLLER). — Ab affini *P. carcinomali* sporis omnino differt.

2. **Podaxon algericum** Pat. Bull. Soc. Mycol. 1904, p. 53, tab. V. — 759

Peridio globuloso 3-4 cm. cr., carnosum-molli, dein membranaceo-rigido, albido, squamis latis, tenuibus subchartaceis, lividis tecto, basi secedendo v. laciniatim dehiscente; stipite rigido, gracili, 5-8 mm. cr., cylindrico, interdum deorsum incrassato, albo, plus minus viridi v. brunneo-maculato, levi v. plicato-striato, costulatoque albo-squamuloso, intus anguste fistuloso, albo, tactu viridibrunneo-maculato; gleba floccosa, alba dein olivacea v. aurantia; capillitii filamentis hyalinis, simplicibus 6 μ . cr., basidia fasciculato-radiantia ovoidea, 20 \times 15, hyalina hinc inde gerentibus; sporis ovoideis v. subglobosis, sessilibus, 10-12 \times 9-10, hyalinis, dein olivaceis v. rufis v. aurantiis.

Hab. in sabulosis desertis Saharæ Algeriæ, pluribus locis (SEM, DYDOWSKI). — *P. axato* affine sed minus et gleba aliter colorata.

3. **Podaxon Gollani** P. Henn. F. Indiæ orient. II, in Hedw. 1901, 760

pag. 338. — Peridio obovato, ellipsoideo, membranaceo, alutaceo, squamoso, apice obtuso ca. 3 cm. longo, 2 cm. lato; stipite lignoso, duro, squamoso, fibroso, subtereti, alutaceo, intus cavo, pallido, fibroso, 7-9 cm. longo, 0.8-1 cm. crasso, basi bulboso, usque ad 2 cm. crasso; gleba cremaceo-flavida, farinacea; filis capillitii fasciatis, hyalinis 3-6 μ . cr.; sporis angulato-subglobosis v. ellipsoideis 10-12 \times 8-10, hyalino-flavidulis, levibus.

Hab. ad terram, solitarie, Saharanpur-Garden Indiæ orient.

4. **Podaxon strobilaceum** E. B. Copeland, Ann. Mycol. 1904, pag. 4, 761

fig. 7. — Peridio rufescente squamis crassiusculis rudibus margine inferiore liberis consperso, obconico vel subgloboso, infra libero et profunde in paucas lacinias fissus, 5 cm. lat., 4 cm. alto; gleba 2 cm. alt., vulgo nigra, e filamentis capillitii liberis v. la-

teraliter anastomosantibus, pandulis conflata; sporis maturitate atro-brunneis, levibus, $7 \approx 6,5$, basi apiculatis; stipite 8-10 cm. alto, rufescente v. rubro-tincto, levi, basi fibrosa ad 2 cm. incrassato, glebam, veluti columella, percurrente, carne albida.

Hab. in argillosis v. lutosi Lake co. Californiæ (C. F. BAKER). — Præcipue peridii forma distingueretur sed, præeunte cl. P. Hennings, potius *Gyrophragmii* forma videtur.

TYLOSTOMA Pers. — Syll. VII p. 60, IX p. 268, XI p. 159, XIV p. 258, XVI p. 233 *).

1. *Tylostoma kansense* Peck in Bull. Torr. Bot. Club. 1901, p. 430, ⁷⁶² tab. 32, fig. 9. — Peridio subgloboso 1-2 cm. lato, 1-1,5 cm. alto, compacto, firmo, glabro, albo, interdum basi plano raro ostiolato; ore sublacerato, plano, sæpe subprominenti; annulo 2,5 mm. lato, membranaceo, a stipite distante; stipite æquali, basim versus subconstricto, sæpe abrupte bulboso, 1,5-7 cm. longo, 6-8 mm. crasso, farcto cavo, sæpe sulcato-striato, albo; capillitii floccis raro ramosis 7-11 μ . cr., hyalinis, septis non visis; sporis subglobosis 4-5 μ . diam., brunneo-ferrugineis.

Hab. ad terram, Kansas, Amer. bor. (BARTHOLOMEW).

*) Conferendæ sunt dissertationes sequentes de *Tylostomata* genere: White, *The Thylostomaceæ of North America* (Bull. Torr. Bot. Club, 1901) et L. Petri *Osservazioni sul genere Tylostoma* (Nuovo Giorn. bot. ital., Firenze 1904). Ex hac postrema optima opella sequentem conspectum synopticum specierum principum excerpimus:

Tylostoma Pers.

I. Sporæ leves.

- A. Capillitium incolor v. inconstanter et partim coloratum. Filamenta longa vittæformia.

1. Filamenta in articulos vix secedentia, apicibus ochraceis et incrassatis.

T. pulchellum

2. Filamenta in articulos facile secedentia, apicibus achrois et non incrassatis.

T. Bolssieri?

- B. Capillitium constanter brunneum. — Filamenta brevissima in articulos facile secedentia.

T. obesum

II. Sporæ verruculosæ v. plus minus echinulatæ.

- A. Filamenta brevita et valde sinuosa, extremitatibus parum incrassatis.

T. Vittadinii

- B. Filamenta longa.

1. Filamenta apice quam inferne duplo crassiora.

T. mammosum

2. Filamenta apice paullo v. vix crassiora.

2. *Tylostoma fibrillosum* White in Bull. Torr. Bot. Club. 1901, p. 433, 763 n. 33, fig. 4-6. — Peridio globoso 1-2 cm. alto, 1-2,5 cm. diam. albido, sublevi, intus membranaceo, basi subrotundato; annulo indistincto adhærente; ore prominulo, fimbriato, rotundato; stipite æquali vel basi subconico, sulcato, firmo, albo, interdum cavo fibrilloso 2 cm. long. vestito basi inflatulo, albido, 5-7 cm. longo, 5 mm. diam.; floccis capillitii albi hyalinis 4-8 μ . crassis, parce septatis, sæpe subinflatis; sporis subglobosis, minute verrucosis, hyalino-isabellinis, breve appendiculatis, 3-5 μ . diam.

Hab. ad terram, Ontario (DEARNESS), Michigan Americæ bor. (HICKS).

3. *Tylostoma gracile* White in Bull. Torr. Bot. Club 1901, p. 430, 764 tab. 32, fig. 1-3. — Peridio depresso-globoso 1-1,5 cm. alto, 1,5-2 cm. diam., levi, albido, lucenti; ore plano, lacerato; annulo integro, angusto, rotundato; stipite gracili 3-5,5 cm. longo, 6 mm. diam., inferne 3 mm. diam., basi subincrassato, interdum sulcato, lacerato, albido, fibrilloso farcto, dein cavo; capillitii floccis intense ferrugineis 4-6 μ . crassis, apice rotundatis sæpe inflatulis, ramosis, parce septatis; sporis subglobosis 3-5 μ . diam., levibus, brevi pedicellatis.

Hab. ad terram, Las Cruces, New Mexico, Amer. bor. (WOOTON).

4. *Tylostoma poculatum* White in Bull. Torr. Bot. Club 1901, p. 431, 765 tab. 34, fig. 4-6. — Peridio globoso, interdum depresso, 1-1,5 cm. alto, 1-2 cm. diam., levi, fulvo, membranaceo, squamuloso, persi-

a. Filamentorum parietes numquam undulati.

α Filamenta in articulos non secedentia, extremitatibus flavis incrassatis.

— Filamenta breviuscula, sinuosa, membrana parum incrassata.

T. granulosum

— Filamenta longa, non sinuosa, membrana incrassata. **T. squamosum**

β Filamenta in articulos facile secedentia, extremitatibus non diverse coloratis nec incrassatis.

— Filamenta tota flava

T. campestre

— Filamenta achroa.

T. fimbriatum

b. Filamentorum parietes fere constanter undulati.

α Filamenta apice achroa, facile in articulos secedentia.

— Filamenta 4-12,5 μ . cr.

T. cæspitosum

— Filamenta 4-8,5 μ . cr.

T. Giovannellæ

β Filamenta apice flava, non secedentia.

T. pusillum

III. Sporæ reticulatæ. — Filamenta brevissima apice plerumque clavata.

T. Leveilleianum

stenti, ore paullo prominenti, annulo integro, inconspicuo; stipite 1-3 cm. longo, 3-6 mm. crasso, cylindrico, firmo, subbulboso, cavo vel farcto, squamuloso; floccis capillitii luteolis, subramosis, septatis, in ramificatione noduloso-incrassatis, 4-7 μ . crassis; sporis ferrugineis, subglobosis, levibus vel irregulariter rugosis, brevi pedicellatis 4-5 μ . diam.

Hab. ad terram, Nebraska, in Alabama et in Colorado Amer. bor. (BATES, CARVER et D. M. ANDRES).

5. *Tylostoma subfuscum* White in Bull. Torr. Bot. Club. 1901, p. 433, 766 tab. 34, fig. 10-12. — Peridio globoso 0,8-1,3 cm. alto, 1-1,5 cm. diam., squamuloso basi levi, subrotundo, intus brunneo; ore prominulo, fimbriato; annulo inconspicuo, adnato; stipite brunneo, sæpe lacerato-squamuloso, laterali, sulcato, basi subbulboso, 2-3 cm. longo, 3-5 mm. diam.; capillitio luteolo e floccis hyalinis, ramosis, filiformibus, longis, 4-6 μ . crassis, apice rotundatis, raro septatis inflatisque composito; sporis subglobosis, minute verrucosis, breve pedicellatis, 3-5 μ . diam.

Hab. ad terram, Colorado Amer. bor. (BETHEL).

6. *Tylostoma Vittadinii* Petri N. Giorn. bot. ital. 1904, p. 65 c. ic. 767 *T. mammosum* Vitt. Mon. Lycop. p. 199, t. II, fig. 4, non Mich. nec Fr. — Endoperidio subgloboso, albicante, non nitido, sicco ochraceo, basi zona granulosa cincto, ore prominente sublacero, margine crasso, duro, tuberculoso-papilloso cincto; stipite recto aut flexuoso, extus rufo-fuligineo, squamuloso-diffracto, striato, farcto v. leviter fistuloso, rigido, basi cortici vestigiis fibrillisque albidis instructo; capillitii hyphis numerosissimis, brevissimis, sinuosis, crasse tunicatis, rotundatis; sporis ochraceo-ferrugineis echinulatis, 4,5-5 μ . diam.

Hab. in aridis sabulosis pr. Milano, Pavia (VITTADINI in herb. Sacc.!).

7. *Tylostoma tuberculatum* White in Bull. Torr. Bot. Club. 1901, 768 p. 432, tab. 33, fig. 7-9. — Peridio depresso-globoso, 1-1,2 cm. alto, 1-1,8 cm. diam. levi squamuloso, albido; ore prominulo, fimbriato, rotundato; annulo inconspicuo; stipite filiformi, albido, cavo vel farcto, basi subincrassato, 2-3 cm. longo, 3 mm. crasso; floccis capillitii luteolis, hyalinis, ramosis 4-8 μ . crassis, inflatulis, apice rotundatis, latis, raro septatis; sporis subglobosis, fere levibus, raro tuberculato-verrucosis, 3-5 μ . diam.

Hab. ad terram, Colorado, Amer. bor. (BAKER) et in Columbia Britannica (MACOUN).

8. **Tylostoma mussoorieense** P. Henn. F. Indiæ or. II, in Hedw. 1901, 769 p. 337. — Peridio globoso, papyraceo, dense granuloso-verrucoso, ferrugineo, ore submammoso-rotundato, ca. 1 mm. amplo, basi hemisphærico excavato, margine acuto integro ca. 1 cm. diam.; stipite lignoso, fistuloso, duro, fragili, gracili interdum flexuoso ad apicem attenuato ca. 1,5-2 mm. crasso, usque ad 10 cm. longo, fusco, ferrugineo-fibroso v. squamoso, basi usque 2,5-3 mm. cr., late comoso, squamis membranaceis, ferrugineis vestitis; filis capillitii repetito dichotomis, obscurius noduloso-septatis, flavidulis 4-8 μ . cr.; sporis subglobosis, flavo-brunneis, 4 μ . verrucosis.

Hab. ad terram, gregatim, Mussoorie, Arnigadh Indiæ orient.

9. **Tylostoma minutum** White in Bull. Torr. Bot. Club. 1901, p. 433, 770 tab. 31, fig. 11-13. — Peridio globoso 0,7-1 cm. alto, 0,7-1,2 cm. diam., brunneolo, levi dein squamuloso; ore plano, fimbriato, levi; annulo integro, indistincto; stipite 1,5-2 cm. longo, superne 3 mm. diam., basi incrassato 5 mm. diam., gracili, cavo, intus fibrilloso; capillitii floccis luteolis, hyalinis, parce ramosis, apice rotundatis, 3-5 μ . crassis; sporis irregulariter globosis, fere levibus, appendiculatis, 3-5 μ . diam.

Hab. ad terram, Colorado (BETHEL) et in Kansas, Amer. bor. (KELLERMAN).

10. **Tylostoma albicans** White in Bull. Torr. Bot. Club. 1901, p. 428, 771 tab. 31, fig. 4-7. — Peridio depresso globoso 0,7-1 cm. alto, 1-1,5 cm. diam., levi, albido, dein squamuloso, membranaceo; ore prominulo, brevi, tubulari, integro, annulo irregulari 3-5 mm. a stipite distanti; stipite æquali, basi subincrassatulo, superne lacerato-squamoso, albido, 4-6 cm. longo, 0,5 cm. diam.; capillitii floccis hyalinis, ramosis, septatis, in ramificatione incrassatis, apicibus liberis, rotundatis, 4-6 μ . crassis; sporis rubro-brunneis, irregulariter globosis, appendiculatis, levibus, raro rugosis 4-5 μ . diam.

Hab. ad terram, Texas, Amer. bor. (E. D. COPE).

BATTARREOPSIS Henn. in Hedw. 1902, p. (212) (Etym. a *Battarre*, cui affinis). — Peridium stipitatum; stipes centralis, subcarnosus, fibrosus; volva coriacea, ampla, laciniato-incisa; peridium pileiformi-hemisphæricum, coriaceum; gleba cellulosa, in loculos septis membranaceis sinuosis divisa; capillitium? sparsum; sporæ subglobosæ, subochraceæ.

1. **Battarreopsis Artini** Henn. l. c. cum icone. — Stipite carnoso, 772 sicco subcorneo, fibroso-fusco, flexuoso?, ca. 20-30 \times 2-4 cm.; volva

coriacea, ampla, laciniato-incisa, ca. 5 cm. longa, 4 cm. lata, basi mycelio radiciformi; peridio subcoriaceo, convexo-hemisphærico, superne dehiscente, ca. 7-10 cm. lato, 3 cm. lato; gleba cellulosa in loculos septis membranaceis divisa; filis capillitii? sparsis, filiformibus, simplicibus vel ramosis vel subfasciatis flexuosis 2-6 μ . cr., subhyalinis vel subochraceis; sporis subglobosis vel ovoideis, interdum angulatis 5-7 μ ., episporio subochraceo, granuloso-verrucoso, interdum sporis subglobosis, hyalinis, levibus, 8-12 μ . (immaturis?) intermixtis; basidiis? clavatis.

Hab. in terra asphaltica, dimidio immersa, in Villa Tito-Pascha-Hekekyan, Alexandriae Ægypti.

BATTARREA Pers. — Syll. VI p. 65, IX p. 270, XIV pag. 259, XVI p. 236.

1. *Battarreæ levispora* Massee in Kew Bull. 1901, p. 152. — Peridio 773
globoso depresso, glabro, albido 4-6 cm. lato; gleba croceo-ochracea; stipite undique squamis paleisve tecto, deorsum attenuato 8-12 cm. longo; volva libera, magna, vaginali, limbo lobata, albida; sporis dilute ochraceis, subglobosis, glabris, 6-7 μ . diam.

Hab. ad terram, Poona, prov. Bombay Indiæ brit. (WOODROW).
— *Batt. Muellerei* Kalchbr. affinis.

2. *Battarreæ laciniata* Underwood apud White in the Torrey Botan. 774
Club. 1901, pag. 439, tab. 36, f. 1-6. — Peridio 5-6 cm. diam., 2-3 cm. alto, levi, membranaceo, convexo, margine tenui, molli, inflexo, portione glebæ vestito, inferne luteo albido; stipite 25-35 cm. longo, lignoso, cavo, fibroso-squamuloso secedente, sublacerato, basi subincrassato 1,5 cm. superne inflato, 2,5 cm. crasso; volva complexa, pluri-stratosa, capillitio albido; floccis hyalinis, indefinitis, irregularibus, interdum fasciculatis; cellulis 30-50 μ . longis, 5-7 μ . crassis, annulato-spiralibus; sporis subglobosis, rufo-brunneis, 5-7 μ . diam., fere levibus.

Hab. in Mesilla Park, New Mexico (COCKERELL).

3. *Battarreæ Griffithsii* Underwood apud White in the Torr. bot. 775
Club. 1901, p. 440, tab. 37, fig. 1-6. — Peridio 2-3,5 cm. diam., 1-2 cm. alto, levi, membranaceo, inferne plano, distincte dehiscente; stipite cavo, æquali 1-1,5 cm. diam., 9,5-15 cm. longo, sulcato, fibrilloso; volva facile evanescente, e squamulis obtusis, fibrillosis composita; capillitii floccis 4-10 μ . crassis, albidis, subapplanatis, irregularibus, ramosis; cellulis 24-35 × 6-8 annulato-

spiralibus; sporis subglobosis, minute verrucosis, fere levibus, rufo-cinnamomeis 4-5 μ . diam.

Hab. ad terram in Arizona Amer. bor. (D. GRIFFITHS).

4. **Battarrea arenicola** E. B. Copeland, Ann. Mycol. 1904, p. 2, f. 6. 776

— Peridio 4-5 cm. lato, applanato v. late campanulato, brunneo, centrum versus pallidiore, area centrali plicato-tuberculata, sæpe arena v. fragmentis variis obruta, margine varie flexo et subfimbriato; filamentorum capillitii fasciculis e peridii superf. inter. dependentibus, filamentis paucis annulatis, 3,5-5 μ . cr.; sporis globosis, sublevibus, 3-8-5 μ . diam. atro-brunneis, coacervatis nigris; stipite subepigæo v. ad medium hypogæo, 12-15 cm. longo, 8-15 mm. cr., levi, albido, sed sæpe fœdato, carne alba, vetusto corrugato-squamoso, ligneo, cremeo-brunneo; volva persistente tubulosa, irregulariter lacinata.

Hab. in sabulosis, Antioch et S. Francisco Californiæ (C. F. BAKER). — An, præeunte cl. Hennings, = *Montagnites*?

5. **Battarrea Franciscana** E. B. Copeland, Ann. Mycol. 1904, p. 3. 777

— A *B. phalloide* præsertim differt squamis latis liberis ad stipitem deficientibus, hujus contextu minus ligneo, peridii parte inferiore molliore; sporis rugulosis 4-4,5 μ . diam.; capillitii filamentis subinde 4,5 μ . diam., spira irregulari præditis; odore typico nullo.

Hab. ad terram, Arizona et Texas Amer. bor. (PALMER).

MITREMYCES Nees. — Syll. VII p. 68, IX p. 270, XI p. 162.

1. **Mitremyces microsporus** (Atkins.) Sacc. et D. Sacc. *Calostoma* 778

Atkinson in Journ. of Mycol. 1903, pag. 17. — Peridio ovoideo 10-15 mm. lato, ore 5-7-dentato, prominenti, intus cinnabarino; exoperidio in verrucas numerosas, minutas, duriusculas diffracto; partem mediam et inferiorem endoperidii obtegente, vulgo omnino secedente et aream levem circa ostiolum endoperidii relinquente; sporis oblongis, rarius ellipsoideis, albis, levibus, 6-10 \approx 3,5-5,5, plasmate granuloso subinde medio diviso; stipiti cylindræo vel ventricosso, subinde compresso 3-6 cm. alto, 1-2 cm. crasso.

Hab. ad terram, Rugby Tennessee, Amer. bor. (PERCIVAL).

2. **Mitremyces japonicus** (P. Henn.) Sacc. et D. Sacc. *Calostoma* P. 779

Henn. Fg. japonici IV, in Bot. Jahrbücher vol. XXXI, 1902, p. 738. — Exoperidio subgloboso v. ovoideo, cinereo-fuscido ca. 5-8 mm. diam., squamis crassis, verrucosis, fuscis peridii extremi vestito, dein nudo, subareolato, brevi v. obsolete stipitato; stipite e fibris crassis, tortis, cartilagineis in sicco corneis, ferrugineis con-

sistente, ca. 2-5 mm. longo crassoque; osculo vix coronato dentibus 4-5, sæpe basi laciniato-partitis, margine cinnabarinis, dehiscienti; endoperidio membranaceo, subgloboso, 3-5 mm. diam., cremeo, glabro; floccis ramosis, hyalinis 1-2 μ . cr.; sporis ellipsoideis, hyalino-flavidulis, 8-13 \times 6-8, episporio sublevi v. granuloso.

Hab. ad terram, Nagasaki et Izu Japoniæ.

GEASTER Mich. — Syll. VII p. 70, IX p. 271, XI p. 162, XIV p. 260, XVI p. 237.

1. **Geaster Dybowskii** Pat. Bull. Soc. Mycol. 1902, p. 300. — Exoperidio 4-5 cm. diam., globuloso, usque ad medium 5-8-fido, laciniis membranaceis, cuneiformibus intus levibus, nigrescentibus, sæpe rimosis, extus lateritiis, tomentoso-verrucosis; endoperidio globoso, levi, glabro, papyraceo, sessili, pallide umbrino, peristomio conico, atro, pectinato-sulcato, rima circulari circumscripto; gleba atrobrunnea; columella capitata; capillitio ex hyphis rufo-brunneis 3-7 μ . crassis, composito; sporis in cumulo atris, sub lente brunneis, globosis, asperulis, 4-5 μ . lat.; mycelio superficiali, filamentoso, copioso, albo.

Hab. ad ligna putrescentia, Oubangui (DYBOSKI). — *G. javanico* Lév. affinis.

2. **Geaster Giacomellianus** Speg. Myc. argent. ser. II, 1902, p. 56. — Exareolatus; exoperidio 4-5-partito subgloboso 20-25 mm. diam., extus albido-cinerecente, tenui-subpapyraceo, laciniis subtriangularibus, intus umbrino; endoperidio globoso, 18-22 mm. diam., umbrino, sessili, glabro, tenuiter chartaceo rigidulo, ostiolo minuto denticulato dehiscente; gleba fuligineo-nigra pulverulenta; sporis globosis, parvis, grosse laxaque papillatis, 4-5 μ . diam., fuligineis.

Hab. in pratis aridis, Aimonacid et Cochaugasta, La Rioja in Argentina (A. GIACOMELLI). — Species *G. platensi* Speg. valde affinis, sed tamen distincta.

3. **Geaster Lloydii** Bres. et Pat. in Lloyd. Mycol. Not. n. 6, 1901, p. 50. — Exoperidio membranaceo, 4-6-fido, revoluto, intus brunneo, levi, extus luride alutaceo, tomentoso-villoso, tomento ex hyphis tortuoso-intricatis crasse tunicatis, more *Hirneolæ polytrichæ* conflato, basi mycelio copioso radiciformi albo prædito; laciniis obovatis infra medium partitis; endoperidio globoso-obovato, papyraceo, sessili, avellaneo-umbrino; peristomio indeterminato, piloso-fimbriato; capillitio brunneo-fusco, ex hyphis 3-8 μ . cr. con-

flato; columella clavata v. clavato-subcapitata; sporis globosis, levibus, flavis, episporio crasso fusco, 3-4 μ . diam.

Hab. ad terram in insula Samoa. — Exoperidio tomentoso a ceteris speciebus (nisi *G. velutino* parum noto) optime distincta.

4. **Geaster pseudolimbatus** Hollós in Matem. es Termeszett. Ertesito, 783 Budapest 1901, p. 507. — Exoperidio in 6-8 lacinias inæquales acutas ad basim partito, rigido, coriaceo, subfornicato, intus atro-brunneo-purpurascente mox griseo, pedicellato, subtus apophysato; peristomio ciliato-sericeo, circulis pallescentibus cincto vel indeterminato; columella basi latiuscula, usque ad medium endoperidium excurrente; gleba umbrino-purpurea; capillitio e filis simplicibus brunneis 6-7 μ . cr.; sporis globosis, atro-brunneis, episporio dense verrucoso, 5-6 μ . diam.

Hab. in Hungaria. — Endoperidium 1-2 cm. latum; exoperidium expansum ad 3-4 cm. raro 7 cm. diam.

5. **Geaster hungaricus** Hollós in Matem. es Termeszett. Ertesito, Budapest 1901, p. 506. — Exoperidio in 5-10 plerumque in 7 lacinias acutas ad basim partito, hygrometrico, siccitate arcte involuto, extus niveo, intus ochraceo, mox brunneo; endoperidio subgloboso, cinereo v. castaneo, sessili, levi, subfurfuraceo; peristomio plano-conico, ciliato-fimbriato, rima circulari marginali circumspecto; columella longa sed exemplaribus parvis obsoleta; gleba cinerea; capillitio flavidulo, subhyalino, e filis simplicibus 2-4 μ . crassis; sporis globosis, flavo-brunneis, uni-guttulatis, verruculosus, 4-6 μ . diam., plerumque breviter pedicellatis.

Hab. in Hungaria. — *Geasterum* minimus est. Endoperidium 2-5 mm. latum; exoperidium explanatum circ. 10 mm. metiens. Nonnunquam fungus siccus involutus non amplius ac 2-3 mm. est.

6. **Geaster pseudostriatus** Hollós in Matem. es Termeszett. Ertesito, Budapest 1901, pag. 505. — Exoperidio 7-8-fido, crasso, rigido, intus levi, brunneo, rimoso, basi integra subfornicata; laciniiis acuminatis explanatis, non hygrometricis; endoperidio subgloboso, depresso, griseo-brunneo, dense verrucoso, scabro, flavo-pedicellato, subtus apophysato; peristomio orbiculo marginato, sulcato plicato; columella parva, subglobosa, ultra medium exoperidium non excurrente; gleba brunnea; capillitio flavo-brunneo, floccoso, e filis simplicibus 6 μ . cr. versus apicem attenuatis; sporis globosis, brunneis, 5-6 μ . diam., episporio dense verrucoso.

Hab. in Hungaria. — Endoperidium 1-1,5 cm. lat., diametrum exoperidii expansi usque ad 5-6 cm.

7. **Geaster Englerianus** P. Henn. Engl. bot. Jahrb. XIV, 1891, p. 361, 786 t. VI, f. 8. — Syll. XI, pag. 162. — var. *lignicola* P. Henn. F. Amaz. I, p. 185 (Hedw. 1904). — Exoperidio coriaceo, 5-7-fido explanato, laciniis triangularibus rigidis, intus strato ceraceo atro-castaneo rimoso, $1\frac{1}{2}$ -2 cm. explanato; endoperidio sessili subgloboso depresso, papyraceo, atrofusco, ca. 1 cm. diam. levi, peristomio fimbriato, azono; capillitio atro, floccis 3-6 μ . crassis, fusco-castaneis; sporis globosis, verrucosis, atro-castaneis, 3-3 $\frac{1}{2}$ μ .

Hab. in fragmentis ligneis putridis, Birco do Tejo, Juruá sup. Amazoniæ (ULE). — A typo sporis paullo majoribus et habitatione differt. Ad *G. Englerianum*, teste cl. Lloyd, spectat *G. maurus* Massee (1899) posterior.

8. **Geaster leptospermus** Atk. et Coker Bot. Gaz. 1903, Oct. p. 306, 287 c. icon. — Solitarius v. gregarius ovoideo-globosus; peridio 3-4.5 mm. diam., exoperidio matrici filamentis mycelii arcte fixo, radiatim in 3-4 lacinias diviso; laciniis in strata duo facile separatis, apice tamen coalitis, superficie interiore minute granulosa alba v. carneo-tincta; endoperidio sessili v. brevissime pedicellato, 2.5-3.5 mm. diam., globoso, ore definito, fibrillis sericeis prædito (nec sulcato, nec striato), pallide alutaceo, circa ostiolum albo; capillitio copioso pallido v. flavido-brunneo, filamentis 2-6 μ . cr., rectis v. flexuosis, simplicibus v. ramosis; sporis perexiguis e globoso angulosis, levibus, 1.5-2.5 μ . diam., e pallido flavido-brunneis.

Hab. inter muscos ad cortices Juniperi virginianæ, Caryæ, Ulmi, Chapel Hill N. Carolina Amer. bor. (COKER).

Subgen. MYCELIOSTROMA P. Henn. F. Amaz. I, p. 185 (Hedw. 1904). — Mycelium stromaticum late effusum.

9. **Geaster juruensis** P. Henn. F. Amaz. I, p. 185 (Hedw. 1904). — 788 Terrestres, mycelio effuso, membranaceo-coriaceo, albido; peridio stipitato primo piriformi, apice umbonato, alutaceo, coriaceo ruguloso, 2-2 $\frac{1}{2}$ cm. alto, $1\frac{1}{2}$ -2 cm. lato; stipite usque ad 1 cm. longo, 5 cm. crasso, exoperidio irregulariter ad medium paucifido, laciniis ca. 5 triangularibus; endoperidio subgloboso, cinereo, sessili, papyraceo, levi, disco plano, peristomio conico, fimbriato, columella subclavata, gleba atra, filis capillitii flexuosis, brunneis, utrinque attenuatis, ca. 3-4 μ . crassis; sporis globosis, atro-castaneis, granulato-verrucosis, ca. 2-2 $\frac{1}{2}$ μ .

Hab. ad terram silvaticam, Rio Juruá, Bom Fim Amazoniæ

(ULE). — *G. stipitato* et *G. mirabili* affinis et præcipue stromate mycelico late effuso (subgenus novum præbente) distinguitur. A *Geast. stipitato* etiam sporis dimidio minoribus dignoscitur.

GEASTEROPSIS Hollós Külön. Növenyt. Közl. 1903, II, 2 (Etym. *Geaster*, cui affine genus). — Exoperidium crassum, rigidum, in lacinias irregulares dehiscens, centro stilum sublignosum gerens; stilo obconico dilatato, columellam subrotundam formante. Similis *Geasteri*, at endoperidio secedente et columella sublignosa obturbinata distinguitur.

1. **Geasteropsis Conrathi** Hollós l. c. cum ic. — Exoperidio crasso, 789
duro, rigido, coriaceo, subhygrometrico, extus ochraceo, brunneo et albo variegato, rimis longitudinalibus, intus umbrino, rimoso, in decem inæquales curvatas lacinias fisso, in centro stilum latum, durum gerente; stilo obconico-dilatato et sublignoso, subrotundam columellam formante; endoperidio albello, molli, flexibili, cum gleba omnino secedente; gleba umbrina; sporis globosis, umbrinis, densis, verrucosis, sessilibus vel breve pedicellatis, 1-grosse guttulis, 6 nonnumquam 8 μ . diam.; capillitio subhyalino, dilute umbrino, non vel raro ramoso, nonnumquam septato, 4 μ . diam.; exoperidio expanso usque ad 10 cm., columella prope 3 cm. lata.

Hab. ad terram graniticam prope Johannesburg Africae merid. (CONRATH). — Similis *Geasteri*, quia exoperidium in lacinias finditur, endoperidium autem non peristomio aperitur, sed omnino sejungitur et tunc sublignosa columella cum exoperidio remanet.

DIPLODERMA Link — Syll. VII p. 92, IX p. 273, XI p. 163.

1. **Diploderma glaucum** Cooke et Masee. — Syll. VII, pag. 93. — Quoad hanc speciem cfr. Hollós in Külön. Növenyt. Közl. 1902, I, 4 cum icone; qui pro ea genus *Potoromyces* F. Müll. in herb. Sacc. admittit.

LYCOPERDON Tourn. — Syll. VII p. 106, IX p. 275, XI p. 165, XIV p. 263, XVI p. 241.

1. **Lycoperdon favosum** Oud. Bot. Centr. 1902, Beil. p. 4 (extr.). — 790
Altum ad 12 cm., umbrinum; peridio subgloboso, 3 cent. diam., papyraceo, fragili, summo tandem varie lacerato-dehiscente, granulis minimis, partim muticis, partim mucronatis, dense et inæqualiter vestito, ætate provecta levissimo, deorsum interruptione tantum superficiali intercessa in stipitem paullo tenuiorem abeunte;

stipite cylindrico, per totam superficiem impressionibus fere contiguïs 4-6-gonis, amplitudinis 3-7 mm., p. m. micantibus verrucisque una v. pluribus, primo spiniferis, denique calvis ornatis, obsesso, ceterum pulvere furfuracea consperso; glebula flocculoso-gossypina, pulvere farcta, dilute umbrina; floccis tenellis, gracilibus 2-3 μ . cr., parce ramulosis, continuis vel parvissime septatis, avellaneis; sporis globosis 4,5-5 μ . diam. minutissime asperulis, saturate avellaneis.

Hab. ad terram, Valkenberg Hollandiæ.

2. *Lycoperdon tasmanicum* Masee in Kew Bull. 1901, p. 158. — 791
Peridio obovato, membranaceo, sordide ochraceo, verrucis pyramidalis demum deciduis ornato, basi fibrillis longis repentibus radicante, 3-6 cm. alto, basi sterili distincta; gleba dilute brunnea; hyphis capillitii subhyalinis, ramosis; sporis globosis olivaceo-brunneis, verruculosi, 4 μ . diam.

Hab. ad terram in Tasmania (RODWAY).

3. *Lycoperdon erinaceum* Speg. Myc. argent. ser. II, 1902, p. 56. — 792
Candidum; peridio subhemispharico, superne rotundato, inferne subappplanato 40 mm. diam., 32 mm. alt., cortice duplici, externo verrucis magnis pyramidalis 2,5-3,5 \times 1,5-2 mm., confertis subsistentibus ornatis, interno subpapyraceo; stipite obconico 25 \times 15-18 mm. terra ad medium neque infosso, subsuberoso extus levi, albo, intus latissime fistuloso-vacuo a cavitate peridii septo transverso rigidulo, separato; glena grumoso-subpulverulenta ochracea, floccis nullis sed nodulis minutissimis proliferis difformibus 30-50 μ . diam. donata; sporis globosis, levibus, an minutissime subrugulosis, non rostellatis 6-8 μ . diam., subcrassiuscule tunicatis, grosse 1-guttulatis, subhyalinis.

Hab. in pratis sabulosis, prope Posadas, Misiones in Argentina (E. KERMES). — Species pulcherrima distinctissima habitu *Calodermati* accedens.

4. *Lycoperdon atrum* Pat. Champ. de la Guadeloupe, ser. III, in 793
Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Peridio piriformi vel turbinato, supra rotundato, deorsum sensim stipitiformi attenuato, basi in mycelium fibrillosum terminato, papyraceo (in sicco), flavido, vertice ostiolo minuto irregulari dehiscente, verrucis minutissimis, confertis, granuliformibus, deterrentibus, crustam nigram in tota parte peridii inflata et rufam ad stipitem formantibus; parte sterili glebe fulvo-pallida sericea, cellulis obsoletis, stipitem quoque occupante; parte fertili fulva vel fulvo-

brunnea plus minus rubescente, floccoso-pulveracea; capillitii filamentis rufis 3-5 μ . crassis, longissimis, ramulosis, apicibus cuspidatis; sporis globulosis, levibus, ochraceis, 4-5 μ . diam. exappendiculatis vel hilo brevissimo præditis.

Hab. ad terram in Martinica et Guadalupa (Duss). — Peridium 3-4 cm. altum, velo nigro et gleba fulvo-rubescente distinctum. Columella nulla.

5. *Lycoperdon endotephrum* Pat. Bull. Soc. Mycol. 1902, pag. 300, 794 t. XIV, f. 3. — Pileo sursum convexo, hemisphærico, tenui albido-ochraceo, 2-4 cm. lato, 15-25 mm. alto, apice osculo irregulariter aperto, cortice adnato, verrucoso, verrucis minutis, aculeiformibus, stellatim apice confluentibus, deorsum breviter obconico, plicato rugoso, glabriusculo; basi sterili parum evoluta, albida, tenuissime cellulosa, persistenti; gleba floccoso-pulveracea, sordide violascenti; capillitio adnato ex hyphis hyalinis 3-7 μ . crassis simplicibus vel ramosis composito; sporis sub lente fuscidulis, minute verrucosis, subglobosis vel globoso-ellipticis 3,5-4,5 μ . diam., hilo brevissimo donatis.

Hab. ad terram in Madagascar.

6. *Lycoperdon pseudoradicans* Lloyd Mycol. Not. n. 9, p. 84, c. ic. 795 (1902). — Peridio globoso, basi contracto et in processum radiciformem longum (basim sterilem) producto; cortice persistente, tenui, spinulis brevibus quaternatis et apicem versus convergentibus consperso; columella lata prominenti; sporis coacervatis olivaceo-brunneis, minutis, globulosis, minute asperulis, apiculatis, 4 μ . diam.; filamentis 4-8 μ . cr.

Hab. inter muscos præcipue *Leucobryum*, Washington Amer. bor. (F. J. BRAENDLE). — *L. pratensi* et *L. piriformi* affine, sed notis datis satis differt.

7. *Lycoperdon pseudoumbrinum* Hollós Külön. Noveny. Közl. 1903, 796 II, 2 cum ic. — Peridio globoso, 1-1,5 cm. lato, sessili, sordide ochraceo vel rufidulo, subtiliter furfuraceo vel aculeis parvis convergentibus obsesso, basi ramoso; basi sterili obsoleta vel nunquam distincta; gleba olivacea; columella centrali; capillitiis flavidulis vel brunneis, sporarum diametro æqualibus, sparsis, ramosis; sporis globosis, flavidulis, 1-guttulatis, verrucosis 4-5 μ . diam., 4-26 μ . longe pedicellatis.

Hab. ad terram in Carolina meridionali. — *Lyc. umbrino* simile, sed pedicello sporarum permanente vel raro secedente.

8. *Lycoperdon juruense* P. Henn. F. Amaz. I, p. 184 (Hedw. 1904). 797

— *Peridio piriformi*, stipitato, membranaceo-subcoriaceo dense atro-fusco granulato vel squamosulo, 3-5 cm. longo, 2-3 cm. lato, stipite farcto, sterili, spongioso; gleba cinereo-subviolacea; filis capillitii flavo-fusculis, 2-3 μ . crassis; sporis globosis, dense verrucosis, atro-castaneis, 3-3 $\frac{1}{2}$ μ ., pedicello usque ad 12 \times 1, hyalino-fuscululo.

Hab. ad terram silvaticam, Rio Juruá, Juruá-Miry Amazoniæ (ULE). — Habitu *L. piriformi* accedit; sporis longe pedicellatis mox dignoscitur.

9. *Lycoperdon hungaricum* Hollós in Matern. es Termeszett. Ertesito, 798 Budapest 1901, p. 510. — Peridiis subglobosis vel depressis, flavo-brunneis, rufidulis, granulis pallidis parvulis tectis, sessilibus, subtus plicatis; basi sterili parum distincta, parva; gleba olivaceo-viridi; floccis non ramosis, simplicibus, fragilissimis, flavidis, sporarum diametro æquali vel magis tenui; sporis globosis, verrucosis, flavidulis uniguttulatis, breviter pedicellatis, 4-5 μ . diam.

Hab. ad terram in Hungaria. — A *Lyc. colorato* sporis capillitisque præcipue differt.

10. *Lycoperdon pseudocephæforme* Hollós in Matern. es Termeszett. Ertesito, Budapest 1901, p. 511. — Peridiis late ovoideis, subglobosis, subtus plicatis, breve stipitatis, mollibus, ochraceis, rufidulis 1,5 cm. latis; squamis atris; basi sterili obsoleta; columella centrali; capillitio ramoso, flavo, 4 μ . diam.; sporis globosis, interdum complanatis 4-8 μ . diam., flavis, pedicellatis v. sessilibus; pedicellis plerumque longis, deformatis, flavis.

Hab. ad terram in Hungaria. — A *Lycop. cepæformi* sporis præcipue distinctum.

11. *Lycoperdon djurense* P. Henn. in Hedw. 1901, p. 100. — Syll. 800 XVI, pag. 1117 (nomen). — Peridio subgloboso v. ovoideo, basi sulcata, farinaceo-granulosa, brevi radicata attenuato, extus verrucis subconoideis, polyhedricis v. sulcatis pallidis exasperato, dein areolato, flavo-brunneo, ore rotundato, 0,8-20 mm. diam.; gleba pallide umbrina, basi sterili, pallida, favosa; filis capillitii paullum ramosis, hyalino-flavidulis 3,5-4,5 μ . cr.; sporis globosis flavo-fusculis, minute verrucosis, 3,5-4.

Hab. ad terram, Djur Afr. centr.

12. *Lycoperdon pseudopusillum* Hollós Külön. Növény. Közl. 1903, 801 II, 2 c. icone. — Peridio globoso, tenui, molli, estipitato, sessili, sordide ochraceo, subtiliter furfuraceo 5-8 cm. lato, subtus cum mycelio radicante; basi sterili obsoleta; gleba olivacea; capillitio

flavidulo, sporarum diametro æquali, sparso, ramoso; sporis globosis, flavidulis, subtiliter verrucosis, uniguttulatis, sessilibus vel breviter pedicellatis, 4-5 μ . diam.

Hab. in Hungaria, Florida et Transylvania. — A *Lyc. pusillo* sporis verrucosis distinctum.

13. *Lycoperdon samoënsse* Bres. et Pat. in Lloyd, Myc. Not. n. 6, 802 1901, pag. 50. — *Globaria*. Peridio sessili v. subradicato, basi fibrillis mycelialibus, albis, copiosis prædito, utriformi v. obovoideo, apice ore lacerato irregulari dehiscente; cortice externo purpureo, umbrino, granulis parvis, sæpe pyramidatis, demum deciduis, dense obsito; cortice interno papyraceo, pallide alutaceo; gleba matura olivaceo-fusca, basi sterili nulla; capillitio laxo, ex hyphis subhyalinis, 3-5 μ . cr. conflato; sporis globosis levibus, fulvis, nucleis flavidis, 3-3,5 μ . diam.

14. *Lycoperdon acuminatum* Berk. — Sacc. Syll. XI, pag. 166. — 803 var. *Seurati* Patouill., Bull. Soc. Mycol. 1904, p. 134. — Minutissimum 4-6 mm. altum, ovoideo-acuminatum; peridio albido dein ochraceo, verrucis conicis longitudinaliter striatis tecto; gleba olivacea pulverulenta; basi sterili nulla; capillitio raro ex hyphis pallide olivaceis longissimis, parce ramosis, 3-6 μ . cr. composito; sporis globosis, levibus 3 μ . lat. concoloribus.

Hab. ad truncos *Artocarp*i inter muscos in insulis Gambier (SEURAT). — A typo differt peridio dimidio minore, sporis quoque minoribus etc.

15. *Lycoperdon piriforme* Schaeff. — Syll. VII, p. 117. — Citetur Schaeff. tab. 185, nec tab. 189 quæ *L. cœlatum* spectat.

DISCISEDA Czern. — Syll. VII p. 92. — De hoc genere completente pro parte species plures *Catastomæ*, *Bovistæ*, *Globariæ* in Syll. Fung., cfr. dispositionem reformatam cl. L. Hollós in Hedw. 1903, p. 120.

1. *Disciseda Hollosiana* P. Henn. in Hedw. 1902, p. (62). — Peridio 804 depresso-globoso, exoperidio fragili evanescente, endoperidio superne levi, glabro, atro-castaneo v. griseo pruinoso, inferne circumscisso, ruguloso, pallide fusco, ca. 3 cm. diam., intus floccoso, olivaceo; floccis capillitii longis, ramosis vel simplicibus, flexuosis, flavido-olivaceis ca. 3-5 μ . cr.; sporis globosis, atro-castaneis, granulato-verrucosis, 9-12, pedicello persistenti usque ad 30 μ . longo, 2-2,5 μ . crasso, fuscidulo.

Hab. ad terram, Mexico? (C. EHRENBURG).

BOVISTA Dill. — Syll. VII p. 96, IX p. 273, XI pag. 164, XIV p. 261, XVI p. 240. — Cfr. notam ad *Discisedam*.

1. **Bovista hungarica** Hollós in Matem. es Termeszett Ertesito, Budapest 1901, p. 512. — Peridiis sessilibus, compressis v. depressis, cavernosis, cinereis, nitidis, levibus, papyraceis, superne irregulariter ostiolato-perforatis, 3-4,5 cm. diam.; gleba castaneo-purpurea, tota fertili, absque basi sterili; floccis levibus, ramulosis, atrobrunneis 16-20 μ . diam.; sporis globosis umbrinis, levibus 5-6 μ . diam., pedicellatis, episporio crassiuscule et excentrice 1-groseguttulato. 805

Hab. ad terram in Hungaria.

2. **Bovista Stuckerti** Speg. Myc. argent. ser. II, pag. 56 (1902). — 806
Peridio 20-25 mm. diam., superne rotundato, inferne subturbinatulo non plicato, latiuscule terra adnato, tenui, papyraceo, levissimo, glabro, sordide atro-violaceo; ostiolo subrotundo dehiscente 1-4 mm. diam.; gleba subcompactiuscula avellanea; floccis ramosis crebre flexuosis 3-4 μ . crassis, olivascentibus; sporis sphaeroides ecaudatis, muriculatis, dense papillatis, eguttulatis 8-10 μ . diam. fusco-subolivaceis.

Hab. in pratis secus Rio Primero prope Cordoba, in Argentina (T. STUCKERT).

3. **Bovista dealbata** (Lloyd) Sacc. et D. Sacc. *Bovistella dealbata* Lloyd 807
Mycol. Not. n. 9, p. 86, c. ic. (1902). — Peridio globoso, tenui, poro minuto definito dehiscente; exoperidio tenuissimo, albo, adnato, minuto-furfuraceo, primitus in areas diffracto, dein evanescente; basi sterili nulla; gleba brunnea; capillitio filamentis tenuibus, vage ramosis; sporis globosis levibus, 4 μ . diam., pedicello usque 12 μ . longo instructis.

Hab. in pascuis siccis pr. Rockland Washington Amer. bor. (SUKSDORF). — Specimina majora 1 cm. metiuntur. Affinis *Bov. plumbeæ*.

CALVATIA Fr. — Syll. VII p. 105, XIV p. 262.

1. **Calvatia hungarica** Hollós in Matem. es Termeszett Ertesito, Budapest 1901, p. 510. — Peridio globoso depresso, ovoideo, sessili, subtiliter furfuraceo, dilute umbrino, cum maculis rufis, basi plicata; apice fragilissimo, in lacinulas erupto demumque ex toto evanido; basi sterili parvo convexa, cellulari; gleba flavida, olivacea; capillitio pallide lutescente, ramoso, in loco ramificationis triangulum crassum formante; sporis sphaeroides, levibus, dilute 808

luteis, brevissime pedunculatis 1-grosse guttulatis, 4-6 μ . diam.

Hab. ad terram in Hungaria. — Peridium 9 cm. latum, 6,5 cm. altum, aliquo modo *Solani tuberosi* simile est.

2. *Calvatia Diguettii* Har. et Pat., Bull. Soc. Mycol. 1904, p. 64. — 809
Globoso-depressa, 4-6 cm. lata, inferne subapplanata, c. 2 cm. alta, brevissime radicata, velo ochraceo, tenui, sub lente furfuraceo; peridio glabro, ochraceo-fulvo, vix 1 mm. cr., rigido, irregulariter parte superiori frustulatum dehiscenti; basi sterili nulla; gleba gossypina, ochracea; capillitio fragili ex hyphis ochraceis 3-6 μ . latis, ramosis composito; sporis subglobosis, levibus, 3-4 latis, hilo brevissimo donatis.

Hab. ad terram arenosam in California littorali (DIGUET). — Basi sterili nulla, velo et colore distinguenda.

3. *Calvatia tatrensis* Hollós in Matem. es Termeszett. Ertesito, Budapest 1901, pag. 508. — 810
Peridio globoso, tenui, molli, collabescente, primo pallide, mox sordide ochraceo, dilute umbrino; aculeis parvis convergentibus obsesso; stipite brevi, subtus plicato; margine oris magni serrato; basi sterili molli, cellulari, purpurascens et communiter parva; gleba olivacea, mox umbrina; capillitio cylindrico, septato, rigido, fragilissimo, in extrema parte subito in conum transeunte, 5-6 μ . diam.; sporis sphaeroides estipitatis v. brevissime pedunculatis 1-guttulatis, episporio dense verrucoso 5-6 μ . diam., flavo-brunneis.

Hab. ad terram in Hungaria. — Peridium 3-5 cm. latum, maturum calvescens, partim leve et nitidum fit, partim autem aculeos parvos servat.

SCLERODERMA Horn. — Syll. VII p. 134, IX p. 278, XI p. 167, XIV p. 266, XVI p. 244.

1. *Scleroderma hemisphaericum* B. Lázaro in Bol. Soc. españ. de Hist. Nat. Madrid, 1902, p. 158, t. IV (absque diagnosi). — 811
Peridio initio globoso, mox basi applanato-concavo, tunc depresso hemisphaerico, 3-6 cm. diam., flavido, squamis adpressis griseis consperso; gleba e flavo grisea demum pulverulenta, griseo-virente; mycelio e rhizoidibus dense fasciculatis formato; sporis filamentis capillitii brevibus et crassis intermixtis, (mensurae desiderantur).

Hab. inter muscos in Asturiis Hispaniae. — *Scl. vulgari* affine.

2. *Scleroderma verrucosum* (Bull.) Pers. — Syll. VII, pag. 136. — 812
var. *maculatum* Peck Rep. of the State Bot. 1899, p. 848, tab. B, f. 8-12. — Subsessile, globosum vel depresso-globosum, 2,5-7,5 cm.

diam.; peridio crasso, firmo, brunneo, squamulis minutis intense brunneis vestito, in parte superiore facile evanescentibus et maculas pallide luteolas relinquentibus; sporis in massa nigrescentibus, globosis, verrucosis 15-17,5 μ . diam.; cellulis capillitii luteo-brunneis.

Hab. ad terram in silvis, Rosendale, Amer. bor.

3. **Scleroderma Pteridis** Shear in Bull. of the Torr. bot. club. 1902 813
p. 451. — Peridio globoso vel depresso-globoso, sessili, sordide albo vel subluteo, irregulariter squamoso, fibroso-radicato, 3-6 cm. diam.; cortice 3-8 mm. cr.; gleba firma, interdum indistincte areolata, rubro-brunnea; columella nulla; sporis irregulariter globosis rubro-brunneis, rugoso-asperulis, 6-8 μ . diam.

Hab. in rhizomatibus Pteridis aquilinæ, Amer. bor.

4. **Scleroderma Torrendii** Bres. Myc. Lusitanici novi in Atti R. Acc. 814
di Sc. Lett. ad Arti degli Agiati in Roveredo vol. VIII, 1902, p. 132. — Peridio subgloboso, basi radicato, 2-5 cm. diam., fusco-purpureo, primitus levi, dein areolato-rimoso, areolis fusco-purpureis, interstitiis alutaceis, cute 1-1,5 mm. crassa, irregulariter rupta, substantia fracta rubescente; radice brevi, intus lutea, extus fibris mycelialibus copiosis, albis prædita; gleba juvenili compacta, atro-purpurea, venis albis marmorata, dein matura pulveracea, griseo-purpurea, floccis lutescentibus; sporis globosis, atro-purpureis, aculeatis, 12-15 μ . diam.; basidiis obverse piriformibus mox absorptis; hyphis capillitii subhyalinis, septatis 3-6 μ . latis, ad septa hinc inde inflatis.

Hab. ad terram sub Fico Carica pr. Setubal Lusitaniæ. — *Sclerodermati Bovistæ* Fr. proxime accedit.

5. **Scleroderma Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 57. — 815
Syll. XVI, p. 1118 (nomen). — Peridio subgloboso vel ovoideo, sessili v. substipitato, coriaceo corticato, pallide ochraceo dein ferrugineo, punctato-areolato, vertice irregulariter dehiscente 8-12 mm. diam.; gleba ferruginea minute marmorata, floccis ramosis, subhyalino-flavescentibus, fasciatis 3-5 μ . cr.; sporis globosis flavis v. brunneis 8-11 μ . diam., episporio atro-brunneo dense aculeato-asperato.

Hab. ad terram inter folia, Kamerun Afr.

Subgen. MYCENASTRUM Desv.

6. **Scleroderma Corium** (Guers.) Grav. — Syll. VII, p. 142. — var. 816
Sterlingii Lloyd Mycol. Not. n. 12 (1902) p. 120, fig. 10-11. —
 A typo differt peridii superficie omnino levi, nec squamosa.

Hab. ad terram, Denver Colo Amer. bor. (E. B. STERLING).

7. **Scleroderma martinicense** (Pat.) Sacc. et D. Sacc. *Mycenastrum* 817
martinicense Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc.
 Myc. de France T. XVIII, ser. II, 1902. — Ovoideum 5 cm. alt.,
 3 cm. crass., ochraceo-griseum; peridio duro e pilis pyramidalibus
 superne prædito, inferne in pseudo-stipitem 1 cm. long., atte-
 nuato; cortice nigro, rigido, corneo pseudoparenchymatico e cellulis
 magnis composito; columella gracili, albida, firma, tertium cavi-
 tatis attingente, superne incrassatula, laminas tenues radiantes
 emittente; capillitii floccis liberis, simplicibus, longe fusoides,
 utrinque attenuatis 500-600 \times 10-13, fuligineo-pallidis, levibus;
 gleba fuliginea; sporis rotundatis 3-5 μ . diam. pallidis, levibus,
 centro guttulatis.

Hab. ad terram in insula Martinica Americæ centr. — *Scl.*
celato Pat. affinis species.

SCLERANGIUM Lév. — Syll. VII, p. 134, 138. — *Stella* Massee. —
 Syll. IX. p. 272.

1. **Sclerangium brasiliense** P. Henn. F. Amaz. I, pag. 186 (Hedw. 818
 1904). — Peridio globoso-depresso, sessile 7-8 cm. diam., vertice
 ad medium stellatim dehiscente in lacinias 6 crasse coriaceas, extus
 rufo-brunneo squamoso, basi mycelio ramoso, filiformi; endoperidio
 evanescente; sporis globosis, ferrugineis vel castaneis 4-6 μ . ver-
 rucosis, capillitio nullo.

Hab. ad terram silvaticam, Rio Jurua, Marary Amazoniæ (ULE).

— *Scl. americano* (Massee, sub *Stella*) forte affine.

POLYSACCUM D. C. — Syll. VII p. 146, IX p. 280, XI p. 167.

1. **Polysaccum pusillum** Har. et Pat. Journ. de Bot. 1903, p. 13. — 819
 Subglobosum, exiguum, 15-20 mm. lat., sessile v. basi in stipitem
 brevissimum, vix 5 mm., attenuatum, extus atro-brunneum vel
 olivaceo-brunneum vix rugulosum, compactum; sporangiolis, mi-
 nutis vix 1 mm. lat., angulatis, valde compressis, fuscis, dissepi-
 mentis tenuissimis, fragilibus, brunneis; sporis sphaericis, subtiliter
 verrucosis, 8-12 μ . diam., ochraceo-brunneis.

Hab. ad terram pr. Tendea, Nova Caledonia (BERNIER). — Peridii et sporarum minutie prædistinguenda species.

DICTYOCEPHALUS Underw. in Bull. Torr. Bot. Club. 1901, p. 441 (Ety. *dictyon* rete et *cephalos* caput). — Peridium stipitatum, irregulariter secedens; stipes firmus farctus; volva cupulata, persistens ad basim stipitis; gleba parenchymatico-gossypina capillitium includens.

1. **Dictyocephalus curvatus** Underw. l. c. cum icone. — Exoperidio 820 lignoso ad basim stipitis volvam cupulatam efformante; endoperidio *sclerodermeo*, rugoso, intense brunneo, squamoso dehiscente 3-6 cm. alto, 5-8 cm. crasso; stipite 25-40 cm. longo, summo 3-6 cm. diam., ad basim 1,5-4 cm. diam., farcto, contorto, intense brunneo, longitudinaliter sulcato, apice rotundato et in columellam brunneo-luteolam producto; annulo subindistincto in summitate stipitis adfixo; gleba parenchymatico-gossypina; capillitio filamentosum, luteo, cylindrico, septato, ramos 8-10 μ . crasso; ramulis extremis liberis; sporis subglobosis, verrucosis, 6-7 μ . diam.

Hab. ad terram, Colorow, Colorado, Americæ bor. (E. BETHEL).

XYLOPODIUM Mont. — Syll. VII p. 143, IX p. 279.

1. **Xylopodium Bonacinæ** Speg. in Ann. Soc. Cient. Arg. 1899, p. 268. 821
— Solitarium vel hinc inde 2-3-gregarium, 8-20 cm. alt.; nodulo myceliali basali terra infosso e globoso obovato, 2-3 cm. long., 2-2,5 cm. diam., compactiusculo extus subspongioso granulis arenæ impleto; peridio primitus obovato clauso 3-10 cm. longo, 2,5-6 cm. diam., albo, levi v. grosse laxè subconcentrice retrorsumque squamoso-rimoso, apice obtuse rotundato atque in stipite ejusdem longitudinem subæquante 3-8 cm. long. 1-2 cm. diam., tereti v. compressulo, concolore, longitudinaliter minute striato-sulcato, cortice squamuloso, exoperidii vestigiis frustulatim secedente tecto, intus farcto, coriaceo rigidulo attenuato, dein exoperidio crassiusculo calyptratim caduco orbo, endoperidio mox longitudinaliter laciniatim dehiscente, laciniis 5-9 irregulariter linearibus vel lanceolatis, flexilibus revolutis, infundibulariter aperto; gleba subtabacina pulverulenta copiosissima, cavum totum endoperidii implente, sporis minutis globosis 4-5 μ . diam., levibus chlorinis efformata, floccis omnino destituta.

Hab. in aridis sabulosis et saxosis secus Rio Colorado Argen-

tiniae. — *Xyl. Delastrei* Dur. et Mont. valde affine, sed, ut videtur, satis riteque distinctum.

PHELLORINA Berk. — Syll. VII p. 145, IX p. 279, XI pag. 167, XIV p. 267.

1. *Phellorina leptoderma* Patouill. in Bull. Soc. Myc. de France 1903, 822 p. 250. — Peridio globoso, levi, circ. 3 cm. diam., flaccido, tenui, omnino evanescenti; stipite cylindrico 8 cm. longo, 8-10 mm. crasso, lignoso-corneo, farcto, basi bulboso, squamis membranaceis, tenuibus vestito, apice in discum orbicularem, lignosum, abrupte dilatato; gleba compacta, ochracea; sporis globosis 4-5 μ . diam., pallide ochraceis.

Hab. in desertis prope Obock Africae orient. — Affinis *Ph. Delastrei* Dur. et Mont.

2. *Phellorina (Areolaria) strobilina* Kalchbr. Grev. IX, p. 4 (1880). — Syll. VII, p. 144. — Hue spectat, teste cl. Hennings in Hedw. 1904, p. 187, *Xylopodium ochroleucum* Cooke et Massee, quæ species ergo delenda. Sporæ sunt globosæ 6-9 μ . diam., episporio flavo-brunneo, asperulo (nec levi ut ap. C. et M.).

Fam. 4. Hymenogastraceæ Vitt.

HYMENOGASTER Vitt. — Syll. VII p. 168, IX p. 281, XI p. 170, XVI p. 252.

1. *Hymenogaster albidus* Massee in Kew Bull. 1901, p. 158. — Peridio 823 globoso-diformi, 1-2 cm. diam., floccoso, sordide albido, demum lutescente; gleba brunnea, firma, cellulis tortuosis majusculis e basi ipsa sterili vix conspicuis; sporis ellipsoideis, utrinque obtusis, longitudinaliter carinatis, flavo-brunneis, 21-28 \times 14-18, in quoque basidio binis.

Hab. ad terram in Tasmania (RODWAY).

2. *Hymenogaster Rehsteineri* Bucholtz, Hedw. 1903, p. 318, Ann. Myc. 824 col. 1903, t. V, f. 18, Beitr. Hypog. p. 156, t. III, f. 18, *Hym. decorus* Rehst. nec Tul. — Hypogæus sive subepigæus, irregulari-rotundatus, nucis avellanæ magnit.; peridio levi, c. 0,25 mm. cr., albo, dein luteolo; glebæ lacunis irregularibus e basi sterili subradiantibus; septis luteolis (sub microsc.), hyphis vascularibus (?) jodio interdum cærulescentibus instructis; basidiis hymenium raro

superantibus, bisporis; sporis ellipsoideis utrinque angustatis, apice papillatis, gutta oleosa impletis, $17-23 \times 11, 5$; episporio irregulariter rugoso-sinuoso, luteo-brunneo, diaphano, sinus $0,5 \mu$. altis.

Hab. sub Tiliis, Michailowskoje Rossiæ.

3. **Hymenogaster verrucosus** Bucholtz, Hedw. 1901, pag. 319, Beitr. 825

Hypog. pag. 158, t. III, f. 19. — Hypogæus, globosus, albidus, habitu et glebæ structura *Hym. Rehsteineri* similis; sporis obovato-ellipsoideis v. oblongis, breve papillatis $19-29 \times 10-12$ (sine sculptura), guttulatis, episporio brunneo, sinuoso-verrucoso, verrucis magnis irregularibus (ut in sporis *Hydnotriæ carneæ*), usque ad 3μ . elevatis.

Hab. sub Tiliis, Michailowskoje prov. Mosquensis Rossiæ.

4. **Hymenogaster Suzukianus** P. Henn. in Engler Jahrb. 1902, XXXII, 826

p. 41. — Peridio subgloboso-ovato, substipitato vel sessili, tenui, plicato-gyroso, clauso, corneo-brunneo ca. $5-10$ mm. diam.; gleba carnosa laciniis irregularibus, gyrosis, creberrimis exculpta, ochracea; sporis citriformibus, verrucosis, rufo-brunneis, $15-18 \times 12-14$, superne papillatis, inferne substipitatis.

Hab. ad terram, Komaba (Japoniæ (F. SUZUKI)).

LEUCOGASTER Hesse — Syll. IX p. 281, XVI p. 249.

1. **Leucogaster badius** Mattiolo I funghi ipog. ital. in Mem. R. Acc. 827

di Scienze, Torino 1903, p. 356, tab. I, fig. 1-3. — Irregularis, globosus vel gibberosus, (siccus) castaneo-badius, nucis avellanæ aut ovi magnitudine; peridio fibroso levi, tenui, mycelii ramulis radiciformibus adhærentibus saltim instructo; gleba castaneo-badia, loculis sporiferis, plerumque polygonis, magnitudine varia faretæ; loculis, ob basidia dein labentia, sporis plerumque repletis; sporis $12-15 \mu$. diam.; exosporio minutissime tuberculato, reticulum simulante, gelatina hyalina cincto.

Hab. in abietinis, Boscolungo prope Pistorium (Pistoia), oppidum Italiæ centr. (O. BECCARI, 1862).

DENDROGASTER Bucholtz, Beitr. Morph. Syst. Hypog. 1902, p. 148

(Etym. *dendron* arbor et *gaster* venter, ob columellam ramosam).

— Fungus hypogæus, globosus. Peridium tenue, glebæ adnatum et agre separabile. Gleba carnosa, lacunis irregularibus percursa. Columella ramosa e fungi basi sterili exsiliens (ut in *Hysterangio*, sed non cartilaginea). Tramæ septa e columella ramisque ejus orientia, in peridium divergentia, undique cum eo concrecentia.

Basidia bispora; sporis ellipsoideis irregulariter verrucosis sive sulcatis.

1. **Dendrogaster connectens** Bucholtz l. c. p. 149, t. III, f. 15-16. 828

— Globosus, nucis avellanæ magnitudine, rufus, intus clarior; peridio tenui, glabro; gleba dilute ochraceo-brunnea; basidiis bisporis; sporis rufo-brunneis, oblongo-ellipsoideis, $20 \times 10,7$ (incluso sterigmate et sculptura) membrana irregulariter verrucosa vel sulcata.

Hab. in silvis Michailowskjanis in prov. Mosquensi Rossia.

TORRENDIA Bres. Myc. Lusitanici novi, in Atti R. Acc. di Sc., Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1901, p. 132 (Etym. a CAMILLO TORREND S. J. floræ mycologicæ lusitanicæ scrutatore sollertissimo). — Receptaculum stipitato-volvatum. Peridium pileatum, convexo-subhemisphæricum, ceraceo-subgelatinosum, intus cellulosum, a stipite liberum; stipite carnosio fibroso a peridio discreto; volva universali ampla, membranacea, persistenti; sporæ hyalinæ; basidia 1-4-spora. — Videtur *Amanitopsis* gasterospora. Generi *Batarrea* et *Tylostomatibus* volvatis analogum, sed contextu ceraceo-gelatinoso v. carnosio-fibroso, teste auct., inter *Hymenogastraceas* locandum. « An *Secotio* quoque proximum? ».

1. **Torrendia pulchella** Bres. Myc. Lusitanici novi, in Atti R. Acc. 829

di Sc., Lett. et Arti degli Agiati in Roveredo, vol. VIII, 1902, pag. 132, f. 1-6. — Peridio convexo-subhemisphærico, pileiformi, albo, minute reticulato-areolato, subtus libero, fere ubique æque crasso, margine obtuso, 1-1,5 cm. lato, 8-10 mm. alto, cuticula tenui, glabra, non separabili 18-20 μ . crassa, contextu subparenchymatico; gleba subgelatinosa, alba, cellulosa, cellulis sæpe vacuis subrotundis, contextu intercellulari subparenchymatico, basidio-phoro; basidiis clavatis 1-4-sporis, $25-30 \times 7-10$; sporis oblongis, sæpe crasse 1-guttatis $12-16 \times 6-7$ hyalinis; stipite carnosio-fibroso, centrali, a peridio discreto, albido, subglabro, tereti v. compresso, sæpe deorsum attenuato, 2-4 cm. longo, 2-6 mm. crasso, ex hyphis septatis, cylindræis, usque ad 30 μ . latis, contexto; volva membranacea, ampla, lobata, pallida, libera, sæpe in peridio fragmenta relinquente, basi radiculis prædita.

Hab. in locis sabulosis pr. Setubal Lusitaniæ.

RUHLANDIELLA P. Henn. in Hedw. 1903, p. (24) (Etym. a cl. doctore W. RUHLAND berolinensi). — Ascomata superficialia, globosa,

levia glabra, intus gelatinoso-carnosa, pseudoparenchymatica, hyalina, basi myceliophora. Asci cylindraceo-clavati, octospori, paraphysati; sporæ globosæ, brunneæ, reticulato-verrucosæ.

1. *Ruhlandiella berolinensis* P. Henn. l. c., cum icon. — Ascomate 890
superficiali, globoso, basi depresso myceliophoro, extus levi, glabro, pallido v. brunnescente, ca. 5-6 mm. diam., intus gelatinoso-subcarnoso, pallido, pseudoparenchymatico, homoganeo; ascis cylindraceo-clavatis, raro subovoideis, vertice subrotundato-obtusis, basi plus minus attenuatis 8-sporis, ca. 200-220 μ . longis, p. spor. plerumque 150-180 \times 20-25, interdum ca. 100 \times 45; paraphysibus copiosis, filiformibus, septatis, hyalinis, apice vix incrassatis, obtusis, ca. 3-3,5 μ . cr.; sporis plerumque monostichis, interdum subdistichis, ca. 15-18 μ . (sine sculpt.), episporio primo hyalino, levi, dein brunneo, reticulato-verrucoso; verrucis subbacillatis, apice obtusis v. applanatis 3-3,5 \times 1,5.

Hab. in tepidariis, ad terram in olla Melaleucæ, in horto berolinensi Germaniæ.

LYCOGALOPSIS Fisch. — Syll. VII p. 153.

1. *Lycogalopsis Dussii* Pat. Champ. de la Guadeloupe, ser. III, in 831
Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Peridiis globulosis, aggregatis vel sparsis ex albo ochraceis, infra applanatis vel attenuatis, astomis, denique vertice irregulariter diffractis, verrucis albis remotis, perexiguis, angulosis subinde 3-4 apice conniventibus conspersis, mycelio albo, submembranaceo vel fasciculato-ramoso basi cinctis; gleba pallide ochracea cavitatem totam implente, initio in lacunas minutas radiantes excavata; basidiis lacunæ parietes investientibus ovoideis; sterigmatibus quaternis brevibus; sporis globulosis perexiguis 2 μ . diam., pallidissime ochraceis, asperulis, sessilibus vel interdum hilo brevissimo præditis.

Hab. ad terram ad fragmenta lignea putrida; in Martinica (Duss.). — *L. Solmsii* peraffinis, sed peridiis majoribus et verrucosis diversa. Gleba denique pulverulenta et filamentis capillitii e basi peridii radiantibus angustissimis, 2 μ . crass. percursa.

Dubiæ sedis.

GASTROSPORIUM Mattiolo, I funghi ipog. ital. in Mem. R. Accad. di Torino, 1903, p. 361 (Etym. *gaster* venter, *gleba* et *spora*). — Peridium hypogæum, subglobosum, intus gelatinosum, hyalinum,

homogeneum absque lacunis, sporis minutissimis globulosis sub-olivaceis farctum.

1. *Gastrosporium simplex* Mattiolo, I funghi ipog. ital. in Mem. R. 832 Acc. d. Scienze, Torino 1903, p. 361, tab. I, fig. 4-10. — Fungus hypogæus globosus vel globoso-irregularis; peridio crasso, externe lacteo, pulverulento, interne gelatinoso, hyalino nitente; gleba homogenea, sine lacunis; sporis minutissimis, innumeris, sphaericis, levibus, hyalinis, olivaceis, 3 μ . diam. composita; capillitio nullo.

Hab. inter radices graminum in Etruria et Æmilia Italiæ (P. BECCARI, 1862-64!).

PAUROCOTYLIS Berk. — Syll. VII, p. 152. — Teste cl. Patouillard in Bull. Soc. Mycol. 1903, p. 339, *P. pila* Berk. est ex *Hymenogastreis*, affinis generi *Hydnocysti* et *P. fulva* B. et Br. est *Endogoni* affinis; utraque ideo a *Lycoperdaceis* expungenda.

UREDINACEÆ Brongn. *)

Syll. VII p. 528, IX p. 291, XI p. 174, XIV p. 269, XVI p. 257.

Sect. 1. Amerosporæ.

UROMYCES Link — Syll. VII p. 531, IX p. 291, XI p. 174, XIV p. 269, XVI p. 257.

1. **Uromyces Mulgedii** Lindr. Act. pro Fauna et Fl. Fenn. XX, n. 9, 833 1901, p. 18 cum iconē. — Soris punctiformibus, brunneis, amphigenis, initio nudis dein pulverulentis; teleutosperis 20-28 × 10-21, rotundato-ellipticis vel elliptico-oblongis, episporio brunneo verruculoso donatis; poro germinationis singulo, mediano vel in summo vertice; pedicello brevi, hyalino, caduco.

Hab. in foliis Mulgedii tatarici, Tibet (herb. Stockholm).

2. **Uromyces Saussureæ** Karst. Fungi nov. Loennb. 1904, p. 6 (Fin- 834 ska Vetensk. Soc.). — Soris epiphyllis sparsis, epidermide rupta cinctis, fuscis; teleutosporis sphaeroideis, fuscis, 20-25 μ . diam.

Hab. in foliis Saussureæ circa Kurgan-Onsk Sibiriae Julio 1902 (O. A. F. LÖNNBOHM).

3. **Uromyces cucullatus** Syd. in Ann. Mycol. 1904. p. 349. — Soris 835 teleutosporiferis hypophyllis, maculis nullis v. obsoletis insidentibus, sparsis, minutis, circ. $\frac{1}{2}$ mm. diam., omnino pulverulentis, atris; teleutosporis globosis v. subglobosis, rarius ovoideis, utrinque rotundatis, verrucosis, apice cucullo hyalino-flavescenti magno, 6-8 μ . alto, instructis, castaneo-brunneis, 22-33 μ . longis (cum cucullo), 18-22 μ . lat., episporio circ. 3 μ . cr., pedicello hyalino, persistenti, crassiusculo, usque 45 μ . longo.

Hab. in foliis Zexmeniae aurantiacæ, Costarica (TONDUZ

*) Conferenda potissimum eximia *Monographia Uredinearum* coll. P. et H. Sydow (cujus complementum avide exspectamus), nec non egregiæ contributiones bio-morphologicæ v. systematicæ de Uredineis coll. J. ERIKSSON, H. KLEBAHN, Ed. FISCHER, P. DIETEL, P. MAGNUS etc.

ex F. W. NEGER). — Cucullo teleutosporarum mox dignoscenda species.

4. **Uromyces Wulffiae** P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1904). 836

— Maculis rotundato-angulatis vel effuso-confluentibus, exaridis, ferrugineis; soris amphigenis, sparsis vel aggregatis, minutis, fuscis vel cinnamomeis; uredosporis subglobosis, ovoideis vel ellipsoideis, flavidis v. subfuscidulis, $15-20 \times 10-14$, episporio aculeato; teleutosporis oblonge subfusoides vel clavatis, apice plus minus incrassatis, applanatis, papillatis vel crenulatis, episporio flavo brunneo, levi, $20-35 \times 14-18$; pedicello usque ad 40×4 , hyalino.

Hab. in foliis Wulffiae spec., Rio Juruá, Juruá-Miry Americæ meridionalis.

5. **Uromyces Wedeliae** P. Henn. Pilze Japan. II, p. 150 (Hedw. 1904). 837

— Soris amphigenis, sparse gregariis, pulvinatis, ferrugineo-brunneis, ca. 0,3 mm. diam.; uredosporis subglobosis vel ellipsoideis, $25-40 \times 22-30$, episporio castaneo, aculeato; teleutosporis ovoideis vel subellipsoideis, apice crasse papillatis, rotundatis, papilla ca. 6-10 μ . diam., flavido-brunnea, episporio læte brunneo, levi, $25-40 \times 20-26$; pedicello $30-60 \times 4$, hyalino, persistenti.

Hab. in foliis Wedeliae prostratae, Tosa, Shinoyama, Japonia (T. YOSHINAGA).

6. **Uromyces Komarovii** Bubák Sitzungsber. Kgl. böhm. Ges. Wi. 838

senssch. 1902, p. 11 (extr.) fig. 25-35. — Soris hypophyllis, congestis, in maculis luteis vel brunneolis, rotundatis, sæpe confluentibus insidentibus; teleutosporis fusiformibus, raro breve ellipsoideis $22-35,2 \times 8,8-15,4$ pallide luteis, depressis apice late v. obtuse protractis, basi plerumque conicis; pedicello exili, hyalino, sporâ usque duplo longiore, superne 4-5 μ . crasso.

Hab. in foliis Solidaginis Virgaureæ, ad trajectum Dschai-guan-zai-lin, in via ex oppidulo Omoso ad urbem Kirin in silvis primævis jugi Mandschurici Rossiaë asiat. (WLADIMIR KOMAROW).

7. **Uromyces sakavensis** P. Henn. in Hedw. 1903, p. (107). — Ma- 839

culis fuscidulis, rotundatis; soris teleutosporiferis hypophyllis, sparsis v. aggregatis, ferrugineis, pulvinatis; teleutosporis fusoides, apice incrassatis, apiculatis v. bifidis $20-22 \times 10-12$, episporio pallide flavido, levi; pedicello persistente, hyalino $20 \times 2,5-3$.

Hab. in foliis Solidaginis virgaureæ, Sakawa, Tosa Japoniæ (YOSHINAGA).

8. **Uromyces Hellerianus** Arthur, Bull. Torr. Bot. Cl. 1904, p. 2. — 840

Pycnidiis et æcidiis non visis; soris uredosporiferis rotundatis, fere nudis, pulverulentis, pallide brunneis; uredosporis globosis vel 3-anguloso-globosis 20-26 μ . diam., episporio 1,5-2 μ . cr., cinnamomeo-brunneo; poris 2 vel 3 sparsis; soris teleutosporiferis hypophyllis, rotundatis, subnudis, pulverulentis, intense brunneis; teleutosporis globoso-ovoideis, 27-36 \times 21-24, utrinque rotundatis; episporio brevi, exili, hyalino.

Hab. in foliis Cayaponiæ racemosæ, Ponce, Porto Rico Amer. (H. A. HELLER). — Ab *Urom. Cayaponiæ* P. Henn. teleutosporis levibus umbonatisque differt.

9. **Uromyces Psychotriæ** P. Henn. Fungi Amaz. I, p. 157 (Hedw. 841 1904). — Maculis sparsis rotundatis vel effusis paginam foliorum omnino occupantibus, flavido-fusculis; soris hypophyllis gregarie sparsis, minutis, rotundato-angularis, flavido-brunneis, subceraceis; uredosporis hyalinis, minute aculeatis, intermixtis; teleutosporis ovoideis, clavato vel subfusoides-oblongis, apice rotundatis haud incrassatis, 22-30 \times 11-14, intus granulatis, episporio hyalino flavidulo; stipite plus minus elongato, hyalino, ca. 3 μ . crasso.

Hab. in foliis Psychotriæ, Rio Juruá, Juruá-Miry Amer. merid. — Soris subceraceis sporisque subhyalinis bene distincta species.

10. **Uromyces Bouvardiæ** Syd. Ann. Mycol. 1903, pag. 16. — Soris 842 uredosporiferis amphigenis, sparsis, minutissimis, punctiformibus, pulverulentis, flavo-brunneis; uredosporis globosis, subglobosis v. ovatis, echinulatis, dilute flavo-brunneis, 19-27 \times 19-25; soris teleutosporiferis amphigenis, sæpius epiphyllis, sparsis, minutissimis, punctiformibus, epidermide fissa cinctis, pulverulentis, atro-brunneis v. atris; teleutosporis globosis, subglobosis v. ovatis verruculosus, amœne castaneo-brunneis, episporio in sporis globosis æqualiter crasso 5-6 μ ., in sporis ovatis v. ellipsoideis apice incrassato, usque 8 μ ., 32-42 \times 32-38; pedicello hyalino, crasso, persistenti, leniter inflato, usque 40 μ . longo.

Hab. in foliis vivis Bouvardiæ leianthæ, Jumaytepeque in Guatemala (HEYDE et LUX).

- 11 **Uromyces induratus** Syd. et Holw. Ann. Mycol. 1903, p. 16. — 843 Æcidiis plerumque hypophyllis, maculis rotundatis v. irregularibus flavo-brunneis v. brunneis, minutis ca. 2-4 mm. diam. insidentibus, paucis 3-10 plerumque irregulariter aggregatis, ut plurimum ad nervos foliorum in partibus leniter tumefactis et irregularibus insidentibus, cupulatis, margine revoluto, inciso, albo-

flavo; æcidiosporis globoso-angulatis, tenuissime verruculosis vel sublevibus, flavescentibus 14-19 μ . diam.; soris teleutosporiferis præcipue in caulibus evolutis, rarius hypophyllis, oblongis, perduris, compactis, atris, mediocribus, 1-3 mm. long.; teleutosporis quoad formam et magnitudinem valde variabilibus, ovatis, ovato-oblongis, oblongis vel interdum subclavatis, apice rotundatis vel leniter attenuatis, leniter incrassatis, usque 6 μ ., basi sæpe in pedicellum attenuatis, levibus, flavis v. flavo-brunneolis 27-38 \approx 10-15, interdum etiam usque 50 μ . longis; pedicello flavo, persistenti; crassiusculo, usque 40 μ . longo; paraphysibus numerosissimis, rufo-brunneis, densissime coalitis.

Hab. in foliis caulibusque vivis *Dicliptera* spec. *Morelia* in Mexico (HOLWAY).

12. *Uromyces venustus* Diet. et Holw. in Bot. Gaz. 1901, p. 326. — 844

Æcidiiis hypophyllis, sparsis vel in parvulos greges congestis, hemisphæricis, poro pertusis; æcidiosporis globosis v. ellipticis 29 \approx 20-25, minute verrucosulis; soris teleutosporiferis epiphyllis, æcidiorum oppositis, in greges circulares dispositis, magnitudine variabilibus, interdum confluentibus, immersis, pulverulentis, intense brunneis; teleutosporis ovato-ellipsoideis, interdum fere globosis 32-40 \approx 20-28, pallide brunneis, apice pallidioribus acuminatis; episporio crasso longitudinaliter striatulo; pedicello hyalino sporæ æquilongo, exili.

Hab. in foliis *Cestri* nitidi, Amecameca Mexico. — Ab *Ur.*

Cestri Mont. papilla apicali, episporio striatulo differt.

13. *Uromyces dolichosporus* Diet. et Holw. in Bot. Gaz. 1901, p. 327. 845

— Pycnidiis epiphyllis; soris uredosporiferis plerumque hypophyllis, intense brunneis; uredosporis obovatis intense brunneis 33-47 \approx 23-27, episporio crassiusculo echinulato donatis; poris germinationis 3; soris teleutosporiferis plerumque hypophyllis, sparsis, circulatim dispositis, luteo-aurantiacis; teleutosporis oblongo-fusiformibus vel oblongo-clavatis 45-65 \approx 12-18, episporio hyalino, levi; pedicello firmo sporæ æquilongo.

Hab. in foliis *Tournefortiæ* velutinæ, Oaxaca Mexico.

14. *Uromyces cabo-friensis* P. Henn. in Hedw. 1904, p. 79. — Soris 846

teleutosporiferis amphigenis, gregariis, pulvinatis, firmis, atris; teleutosporis ellipsoideis vel ovoideis, apice rotundatis, haud incrassatis, brunneis, medio 1-septatis constrictis 16-25 \approx 13-20, pedicello persistente, hyalino usque 120 \approx 4.

Pycnidiis et æcidiis non visis; soris uredosporiferis rotundatis, fere nudis, pulverulentis, pallide brunneis; uredosporis globosis vel 3-anguloso-globosis 20-26 μ . diam., episporio 1,5-2 μ . cr., cinnamomeo-brunneo; poris 2 vel 3 sparsis; soris teleutosporiferis hypophyllis, rotundatis, subnudis, pulverulentis, intense brunneis; teleutosporis globoso-ovoideis, 27-36 \times 21-24, utrinque rotundatis; episporio brevi, exili, hyalino.

Hab. in foliis Cayaponiæ racemosæ, Ponce, Porto Rico Amer. (H. A. HELLER). — Ab *Urom. Cayaponiæ* P. Henn. teleutosporis levibus umbonatisque differt.

9. **Uromyces Psychotriæ** P. Henn. Fungi Amaz. I, p. 157 (Hedw. 841 1904). — Maculis sparsis rotundatis vel effusis paginam foliorum omnino occupantibus, flavido-fusculis; soris hypophyllis gregarie sparsis, minutis, rotundato-angulatis, flavido-brunneis, subceraceis; uredosporis hyalinis, minute aculeatis, intermixtis; teleutosporis ovoideis, clavato vel subfusideo-oblongis, apice rotundatis haud incrassatis, 22-30 \times 11-14, intus granulatis, episporio hyalino flavidulo; stipite plus minus elongato, hyalino, ca. 3 μ . crasso.

Hab. in foliis Psychotriæ, Rio Juruá, Juruá-Miry Amer. merid. — Soris subceraceis sporisque subhyalinis bene distincta species.

10. **Uromyces Bouvardiæ** Syd. Ann. Mycol. 1903, pag. 16. — Soris 842 uredosporiferis amphigenis, sparsis, minutissimis, punctiformibus, pulverulentis, flavo-brunneis; uredosporis globosis, subglobosis v. ovatis, echinulatis, dilute flavo-brunneis, 19-27 \times 19-25; soris teleutosporiferis amphigenis, sæpius epiphyllis, sparsis, minutissimis, punctiformibus, epidermide fissa cinctis, pulverulentis, atro-brunneis v. atris; teleutosporis globosis, subglobosis v. ovatis verruculosis, amœne castaneo-brunneis, episporio in sporis globosis æqualiter crasso 5-6 μ ., in sporis ovatis v. ellipsoideis apice incrassato, usque 8 μ ., 32-42 \times 32-38; pedicello hyalino, crasso, persistenti, leniter inflato, usque 40 μ . longo.

Hab. in foliis vivis Bouvardiæ leianthæ, Jumaytepeque in Guatemala (HEYDE et Lux).

11. **Uromyces induratus** Syd. et Holw. Ann. Mycol. 1903, p. 16. — 843 Æcidiis plerumque hypophyllis, maculis rotundatis v. irregularibus flavo-brunneis v. brunneis, minutis ca. 2-4 mm. diam. insidentibus, paucis 3-10 plerumque irregulariter aggregatis, ut plurimum ad nervos foliorum in partibus leniter tumefactis et irregularibus insidentibus, cupulatis, margine revoluti, inciso, albo-

flavo; æcidiosporis globoso-angulatis, tenuissime verruculosus vel sublevibus, flavescentibus 14-19 μ . diam.; soris teleutosporiferis præcipue in caulibus evolutis, rarius hypophyllis, oblongis, perduris, compactis, atris, mediocribus, 1-3 mm. long.; teleutosporis quoad formam et magnitudinem valde variabilibus, ovatis, ovato-oblongis, oblongis vel interdum subclavatis, apice rotundatis vel leniter attenuatis, leniter incrassatis, usque 6 μ ., basi sæpe in pedicellum attenuatis, levibus, flavis v. flavo-brunneolis 27-38 \times 10-15, interdum etiam usque 50 μ . longis; pedicello flavo, persistenti; crassiusculo, usque 40 μ . longo; paraphysibus numerosissimis, rufo-brunneis, densissime coalitis.

Hab. in foliis caulibusque vivis *Dicliptera* spec. *Morelia* in Mexico (HOLWAY).

12. *Uromyces venustus* Diet. et Holw. in Bot. Gaz. 1901, p. 326. — 844

Æcidiis hypophyllis, sparsis vel in parvulos greges congestis, hemisphæricis, poro pertusis; æcidiosporis globosis v. ellipticis 29 \times 20-25, minute verrucosulis; soris teleutosporiferis epiphyllis, æcidiorum oppositis, in greges circulares dispositis, magnitudine variabilibus, interdum confluentibus, immersis, pulverulentis, intense brunneis; teleutosporis ovato-ellipsoideis, interdum fere globosis 32-40 \times 20-28, pallide brunneis, apice pallidioribus acuminatis; episporio crasso longitudinaliter striatulo; pedicello hyalino sporæ æquilongo, exili.

Hab. in foliis *Cestri* nitidi, Amecameca Mexico. — Ab *Ur. Cestri* Mont. papilla apicali, episporio striatulo differt.

13. *Uromyces dolichosporus* Diet. et Holw. in Bot. Gaz. 1901, p. 327. 845

— Pycnidiis epiphyllis; soris uredosporiferis plerumque hypophyllis, intense brunneis; uredosporis obovatis intense brunneis 33-47 \times 23-27, episporio crassiusculo echinulato donatis; poris germinationis 3; soris teleutosporiferis plerumque hypophyllis, sparsis, circulatim dispositis, luteo-aurantiacis; teleutosporis oblongo-fusiformibus vel oblongo-clavatis 45-65 \times 12-18, episporio hyalino, levi; pedicello firmo sporæ æquilongo.

Hab. in foliis *Tournefortiæ* velutinæ, Oaxaca Mexico.

14. *Uromyces cabo-friensis* P. Henn. in Hedw. 1904, p. 79. — Soris 846

teleutosporiferis amphigenis, gregariis, pulvinatis, firmis, atris; teleutosporis ellipsoideis vel ovoideis, apice rotundatis, haud incrassatis, brunneis, medio 1-septatis, constrictis 16-25 \times 13-20, pedicello persistente, hyalino usque 120 \times 4.

Hab. in foliis *Oxypetali* spec., Cabo Frio, pr. Rio de Janeiro Brasilæ (C. ULE).

15. **Uromyces Fraseræ** Arthur et Bicker in Journ. of Mycol. 1902, 847 p. 128. — Soris amphigenis, ovoideis vel ellipticis, interdum confluentibus, 1-2 mm. longis; uredosporis obovatis, ellipticis vel oblongis 22-32 \approx 19-26 luteo-viridulis, episporio hyalino minute verrucoso; poris germin. numerosis; teleutosporiis globosis obovatis vel oblongis, interdum subangulosis 25-35 \approx 19-26 pallide brunneis, pedicello hyalino, fragili, 7-16 \approx 3 donatis.

Hab. in foliis *Fraseræ* speciosæ, Wilson, Wyo Amer. bor.

16. **Uromyces Ferulaginis** Lindroth, Umbellif. Ured. 1902, p. 148. — 848 Teleutosporis minutis, planis, vix 1 mm. diam., nigris, nitidulis, initio epidermide tectis, dein nudatis, leviter emergentibus; teleutosporis subglobosis v. sæpius ellipsoideis, 18-33 \approx 17-23; membrana brunnea, 2 μ . cr., levi; poro germinativo unico laterali v. infero, papilla latiuscula rotundata, usque 3 μ . alt.; stipite brevi, hyalino, tenui, caduco.

Hab. in Ferulagine monticola in reg. inf. M. Parnassi Græciæ (ORPHANIDES).

17. **Uromyces Ferulæ** Juel in Bull. Soc. Myc. de France 1901, p. 259, 849 cum icona, *Æcidium Ferulæ* Rouss. et Dur. — Syll. VII, p. 793. — Soris teleutosporiferis subrotundis vel oblongis 0,5-1 mm. latis, paullo prominentibus, diu epidermide velatis, intense brunneis; teleutosporis breve pedicellatis, ellipsoideis vel irregularibus 23-30 μ . diam., episporio pallide brunneo, superne incrassato.

Hab. in caulibus et petiolis *Ferulæ* communis, Alger Africae bor.

18. **Uromyces Sii-latifolii** Karst. Fungi nov. Loennb. 1904, p. 6 (Fin- 850 ska Vetensk. Soc.). — Soris teleutosporiferis, hypophyllis, per epidermidem fissam erumpentibus confertissimis, interdum confluentibus, mediocribus, fuscis; teleutosporis sphæroideis, verruculosis, fuscis, 14-20 μ . diam.

Hab. in foliis vivis *Sii latifolii* prope oppidum Rossia Samara Junio 1902 (O. A. F. LÖNNBOHM).

19. **Uromyces Pteroclænæ** Lindr. Die Umbellif. Ured. 1902, p. 148. 851 — Teleutosporis punctiformibus, minutis, fere nigris, compactis ab epidermide diu tectis; teleutosporis inæqualiter ellipsoideis 22-40 \approx 15-25, vertice sæpe obtusis; membrana levi flavido-brunnea, vertice sæpe obscuriore et 3-5 μ . rarius usque 9 μ . cr.; poro germinativo unico, sæpe laterali; stipite persistente, flavido, 60-70 \approx 6 9.

Hab. in *Cachryde pteroclænæ*, Constantine in Algeria (C. CHOLETTE).

20. *Uromyces Mercurialis* Henn. in Hedw. 1902, p. (62). — Maculis minutis, rotundatis, fuscidulis; soris gregarie sparsis, epidermide rupta, pallida cinctis, ferrugineis, pulverulentis, ca. 0,6–1 mm. diam.; teleutosporis ellipsoideis v. ovoideis, interdum subglobosis, apice subhyalino papillatis, papilla hemisphærica 3–4 μ . diam., flavo-brunneolis, intus granulatis, 15–26 \times 15–18, episporio brunneo, tenui, levi; stipite fragili, hyalino brunnescente, usque ad 20 \times 3–4.

Hab. in foliis vivis *Mercurialis leiocarpæ*, Mont Yokogura Japoniæ (YOSHINAGA).

21. *Uromyces oaxacanus* Diet. et Holw. in Bot. Gaz. 1901, p. 327. — Soris epiphyllis, irregulariter sparsis, rarissime hypophyllis, parvulis, pulverulentis, nigris; teleutosporis ovatis, ellipticis vel subglobosis, frequenter angulosis et irregularibus, 25–35 \times 18–24, episporio pallide brunneo, apice non incrassato, verrucoso; pedicello hyalino, sæpe sporæ æquilongo.

Hab. in foliis *Jatrophæ urentis*, Oaxaca Mexico.

22. *Uromyces Euphorbiæ connatæ* N. Spegnew, Fungi transcaipici et turkestanici, 1901, p. 7, tab. I, fig. 16–21. — Soris amphigenis sparsis, in acervulos plus minus mediocres, circulares congestis, in pag. inferiore foliorum hemisphæricis, epidermide tectis, dein suberumpentibus; uredosporis dilute brunneis, obovatis, irregulariter verrucosis, 20–24 \times 16–19, poris germinationis 2 æquatorialibus instructis. teleutosporis ellipsoideis vel obovatis, flavido-castaneis, 24–29 \times 20–25; pedicello ca. 50 μ . longo, hyalino.

Hab. in foliis *Euphorbiæ connatæ* in Rossia asiatica.

23. *Uromyces hypsophilus* Speg. Mycet. Argent. ser. II, 1902, p. 60. — Maculis nullis sed matrice carnosulo-incrassata, pallescente; acervulis rarissime epiphyllis suborbicularibus, 0,5–1 mm. diam., epidermide disrupta cinctis, sæpius per ætatem confluentibus ac totum hypophyllum obtegentibus; soris subconfluentibus fulvo-ferrugineis; sporis globosis v. obovatis 26 \times 20–25, eximie minuteque apiculatis, spiraliter tenuiterque 10–15-striatis, fulvis, pedicello hyalino fragilissimo brevioribus donatis.

Hab. ad folia viva *Euphorbiæ* spec. prope Mendoza, in Argentina. — Species *Ur. scutellato* (Schrk.) Lév. et *Ur. Kalmusii* Sacc. affinis, tamen sat distinctus videtur.

24. *Uromyces Kabatianus* Bub. in Vettergr. Mic. rar. selecti, Bot. Not. 1902, pag. 176. — Pycnidiis et æcidiis in maculis luteis, rotun-

datis; pycnidiiis amphigenis, magnis, melleis, postea obscuris; pseudoperidiis hypophyllis, dense aggregatis, basi immersis, primo subhemisphæricis, clausis, dein medio apertis cupuliformibus; æcidiosporis aurantiacis, raro rotundatis vel polyhedricis, maxima ex parte oblongis, ovoideis vel ellipsoideis $24-33 \times 18-26$, membrana lutea, dense et conspicue tuberculata; soris uredosporiferis hypophyllis, maculis luteis insidentibus, in circulis dispositis, raro dispersis, brunneis, pulvinatis; uredosporis globosis vel rarissime ovoideis $22-26,5 \mu$. diam, membrana lutea, disperse aculeata donatis; soris teleutosporiferis hypophyllis, oblongis, orbiculariter dispositis, confluentibus, brunneis, pulvinatis, membrana tenui et nitida haud diu tectis; teleutosporis ovoideis, ellipsoideis v. oblongis $31-42 \times 20-24$; membrana dilute fusca 1μ . crassa levi, apice papilla fusca, planiuscula $2-3 \mu$. alta donatis.

Hab. in foliis Geranii pyrenaici, Pragæ in Germania.

25. **Uromyces Paponiæ** Arthur, Bull. Torr. Bot. Cl. 1904, p. 1. — 857

Soris teleutosporiferis hypophyllis, subrotundatis, in greges $1-3$ mm. circinato-congestis, compactis, fere nudis, pulvinatis pallide brunneis; teleutosporis obovato-globosis, $23-28 \times 18-20$, utrinque rotundatis; episorio superne $4-7 \mu$. crasso, centro $2-3 \mu$. cr., levi, brunneolo; pedicello filiformi, hyalino $35-55 \mu$. longo.

Hab. in foliis Paponiæ racemosæ, Mayagues Joyua, Porto Rico Amer. (L. M. UNDERWOOD).

26. **Uromyces capitatus** Syd. in Oesterr. bot. Zeitschr. 1902, n. 5. — 858

Soris teleutosporiferis epiphyllis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, verrucosis, dilute brunneis, $18-23 \mu$. d.; teleutosporis perfecte globosis v. depresso-globosis, apice non incrassatis, dense verrucosis, obscure brunneis, subopacis $18-24 \mu$. diam. vel $16-22 \mu$. altis et $22-25 \mu$. latis; pedicello hyalino, crassiusculo, persistenti, ca. $30-35 \mu$. longo.

Hab. in foliis vivis Desmodii yunnanensis in prov. Yunnan Sinarum (DELAHEY).

27. **Uromyces huallagensis** P. Henn. Fungi Amaz. I, p. 157 (Hedw. 859

1904). — Maculis gregarie sparsis, rotundatis, flavis; soris amphigenis, sparsis, pustulatis vel confluentibus, ochraceo-ferrugineis, uredosporis subglobosis, ovoideis, brunneis, echinatis, $20-26 \times 17-20$; teleutosporis elongato-fusoideis vel clavatis, apice obtuse rotundatis vel subacutiusculis, vix incrassatis, $20-40 \times 12-16$, episorio tenui, hyalino-fuscidulo, pedicello hyalino, ca. $10-20 \times 2-4$.

Hab. in foliis *Desmodii* spec. Peru, Rio Huallaga, Tarapoto Amer. mer. — A ceteris speciebus in *Desmodio* crescentibus diversa.

28. *Uromyces yurimaguasensis* P. Henn. Fungi Amaz. I, pag. 157 860 (Hedw. 1904). — Maculis rotundatis vel explanatis, pallide ferrugineis; soris sparsis vel subgregariis, pulvinatis, ferrugineis, pulverulentis; uredosporis ellipsoideis vel subglobosis, brunneis, verrucosis, 16-25 \times 14-20; teleutosporis subglobosis læte brunneis, 20-23 μ . levibus; stipite hyalino, fragili, ca. 20-40 \times 3.

Hab. in foliis *Clitoria* ejusdam, Peru, Rio Huallaga, Yurimaguas, Amer. merid.

29. *Uromyces Trigonellæ-occultæ* Henn. in Hedw. 1902, p. (211). — 861 Maculis flavidis vel obsoletis; uredosoris amphigenis, sparsis, brunneis, minutis; uredosporis subglobosis 17-20 μ .; episporio cinnameo, minute verrucoso; teleutosoris rotundato-pulvinatis, amphigenis, sparsis vel gregariis atro-castaneis; teleutosporis subglobosis vel ovoideis 19-23 \times 18-20, episporio verrucoso, atro-cinnameo; stipite brevi, fragili hyalino.

Hab. in foliis *Trigonellæ occultæ* pr. Katatbe-Kanal in Ægypto.

30. *Uromyces occidentalis* Diet. in Hedw. 1903, p. (98). — Soris in 862 maculis expallentibus orbicularibus plerumque hypophyllis, sparsis vel circinatis, minutis, subinde confluentibus, pulveraceis; uredosoris ochraceo-brunneis; teleutosoris atro-castaneis, epidermide elevata cinctis; uredosporis globosis rarius late ellipsoideis, 19-23 μ . diam.; membrana 1,5-2,5 μ . cr., brunnea, breve spinulosa; poris germinationis 6-8; teleutosporis globosis v. late ellipsoideis, 17-26 \times 16-21, intense brunneis, membrana 1-2 μ . cr. dense verrucosa, apice non incrassata; stipite caduco.

Hab. in foliis *Lupini latifolii*, Sissons Californiæ (BLANDALE), *Lupini argentei* et *Lupini Sileri*, Gunnison Californiæ (BARTHOLOMEW).

31. *Uromyces Yoshinagai* P. Henn. in Hedw. 1901, p. (124). — Ma 863 culis flavidis v. fuscidulis; æcidiiis hypophyllis interdum epiphyllis sparsis vel gregarie dispositis, sine pycnidiis; pseudoperidiis cupulatis, pallide flavidis, margine subfimbriatis ca. 0,3 mm. diam., contextu cellulis polyhedricis, granulosis, hyalinis; æcidiosporis subgloboso- v. ellipsoideo-angulatis, intus aurantiaco-oleosis 14-19 \times 10-14, episporio granulato, subhyalino; soris uredosporiferis amphigenis, pallide ferrugineis, epidermide pallide velatis; uredospo-

ris subglobosis v. ellipsoideis, flavidis, 20-25 × 18-20, episporio subtiliter granulato-verrucoso; soris teleutosporiferis amphigenis, sparsis, minutis, ferrugineis, epidermide velatis; teleutosporis ovoideis v. ellipsoideis, apice rotundatis, plus minusve incrassatis, papillatis 20-28 × 16-20, episporio castaneo, levi, pedicello persistente, crasso, fusco-cinereo, 18-30 × 6-7.

Hab. in foliis Pisi sativi prope Kamomura in prov. Tosa Japoniæ (T. YOSHINAGA).

32. **Uromyces valesiacus** Ed. Fischer Bull. Herb. Boiss. 1902, p. 952 ⁸⁶⁴
(absque diagnosi). — I. *Æcidium*. Pseudoperidiis poculiformibus, margine albido-flavido, reflexo, denticulato; cellulis pseudoperidii irregulariter seriatis, tunica externa 5-7 μ . cr., interiore tenuiore (cum sculpturis) 3 μ . cr., verruculosa; æcidiosporis ellipsoideo-polyhedricis 18-24 μ . diam., membrana tenui minute crebre verruculosa. II. Uredosporis inter teleutosporas sparsis, globosis, 24-28 μ . diam. laxe verrucosis; poris germinativis 4 vel 3. III. Teleutosporis fere ut *Urom. Fabæ*, sed paullo minoribus apice depresso-papillatis pedicellisque multo magis caducis.

Hab. in foliis Viciæ onobrychioidis in Helvetia (MORTIER, ED. FISCHER). — Affinis *U. Fabæ*.

33. **Uromyces Viciæ-Cracæ** Constantineanu, Ann. Mycol. 1904, ⁸⁶⁵
p. 252 cum icone. — Soris teleutosporiferis amphigenis, ellipsoideis vel rotundatis, primo epidermide bullata et fissa tectis, dein cinctis et pulvinatis; teleutosporis castaneo-brunneis, raro subsphæricis, diametro 18,5-23, vulgo ellipsoideis vel piriformibus 21,6-26 μ . longis, 20,9-22,2 μ . crassis, apice papilla conica obtusa, hyalina ornatis; membrana longitudinaliter lineolis parallelis vel anastomosantibus præditis, raro sublevibus; pedicello deciduo, hyalino, usque 40 μ . longo; paraphysibus filiformibus, hyalinis.

Hab. in foliis Viciæ Cracæ ad Valea-adinca et Breazu in districtu Jassy Romanæ.

34. **Uromyces Psophocarpi** Syd. Ann. Mycol. 1903, p. 16. — Pseudæcidiiis amphigenis, irregulariter sparsis, minutis, epidermide semigloboso-elevata diu tectis, tandem liberis et epidermide fissa cinctis, cinnamomeis; sporis globosis, subglobosis vel ovato-ellipsoideis, levibus, flavis v. flavo-brunneolis 19-34 × 17-26; teleutosporis adhuc ignotis.

Hab. in foliis vivis Psophocarpi longepedunculati Chinchoxo, in Africa occ. (West-Afrika) (SOYAUX).

35. **Uromyces tarapotensis** P. Henn. Fungi Amaz. I, p. 156 (Hedw. ⁸⁶⁷

1904). — Maculis rotundatis vel confluentibus inflatis, subferrugineis; soris hypophyllis sparsis v. aggregatis, bullatis, ferrugineis; teleutosporis subfusoides, ovoideis vel ellipsoideis, apice rotundatis vel applanatis haud incrassatis, 20-30 × 15-20, episporio tenui, levi, hyalino subfuscidulo, pedicello hyalino, gracili usque ad 45 μ . longo, 3-4 μ . crasso.

Hab. in foliis *Camptosemæ* spec.? Peru, Huallaga, Tarpoto, Amer. merid. — Sæpe *Tuberculinâ* infectus.

36. **Uromyces Pseudarthriæ** Cooke — Cfr. Syll. VII, pag. 579. — Syd. in Ann. Mycol. I, 1903, p. 324. — Maculis epiphyllis, brunneis, indeterminatis; soris uredosporiferis hypophyllis, irregulariter sparsis vel hinc inde laxè aggregatis, in tomento plantæ nutriticis nidulantibus, pulverulentis, cinnamomeo-brunneis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavo-brunneolis, 19-25 × 16-22; episporio tenui.

Hab. in foliis *Pseudarthriæ Hookeri* in insula Togo (R. BÜTTNER).

37. **Uromyces Bolusii** Masee in Kew Bull. 1901, p. 168. — Soris 863 epiphyllis, innato-prominulis, compactis, brunneo-cinnamomeis, sæpe ob confluentiam linearibus, diu epidermide albicanti tectis; teleutosporis ellipticis, episporio levissimo sursum valde incrassato et in mucronem papillæformem producto, 29-35 × 24-26, pallide brunneis, stipite longissimo 125-160 × 7-8 hyalino suffultis.

Hab. in foliis vivis *Aspalathi pachylobæ*, in Colonia Capitis Bonæ Spei Africae merid. (BOLUS). — *U. Junci* Tul. affinis.

38. **Uromyces Indigoferæ** Diet. et Holw. in Bot. Gaz. 1901, p. 328. 869 — Soris plerumque epiphyllis, sparsis vel in parvulos greges congestis, in maculis brunneis insidentibus, vel in petiolis fructuum immaturorum, parvulis, immersis, erumpentibus, intense-brunneis; uredosporis globosis vel ellipsoideis, spinulosis, brunneis 20-25 × 18-23; teleutosporis ellipsoideis vel globosis, levibus, pallide-brunneis, apice subincrassatis 20-30 × 18-25; pedicello longo, firmo, hyalino.

Hab. in foliis petiolisque *Indigoferæ mexicanæ*, Oaxaca Mexico.

39. **Uromyces sphærocarpus** Syd. in Ann. Mycol. 1904, p. 349. — 870 Soris uredosporiferis hypophyllis, rarius epiphyllis, maculis nullis v. obsoletis sparsis, minutis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis 18-24 μ .

diam., rarius usque 26 μ . longis; soris teleutosporiferis conformibus, epidermide fissa cinctis, obscurioribus; teleutosporis globosis, apice non incrassatis, verrucis conicis acutiusculis dense obtectis, castaneo-brunneis, 18-20 μ . diam.; pedicello brevi, hyalino, deciduo.

Hab. in foliis vivis Indigoferæ tinctoriæ, Kawakita pr. Tosa Japoniæ (T. JOSHINAGA).

40. *Uromyces ingicola* P. Henn. Fungi Amaz. I, pag. 157 (Hedw. 871 1904). — Maculis rotundatis, fuscidulis; soris sparsis vel aggregato-confluentibus hypophyllis interdum epiphyllis, pulvinatis, fuscis; uredosporis subglobosis, brunneis, verrucosis, 18-22 μ .; teleutosporis ovoideis vel fusoides, apice incrassato papillatis vel rotundatis, 23-30 \times 17-20, episporio flavido-fuscidulo, longitudinaliter flexuose striato, subtuberculato; pedicello fragili, brevi, hyalino-fuscidulo.

Hab. in foliis Ingæ spec. Rio Juruá, Juruá-Miry, Amer. merid. — Teleutosporis longit. flexuoso-striatis dignoscitur.

41. *Uromyces caraganicola* P. Henn. in Hedw. 1901, pag. (124). — 872 Maculis nullis; soris uredosporiferis hypophyllis, sparsis, minutis, epidermide pallida fissa tectis, dein pallide ferrugineis; uredosporis ellipsoideis, ovoideis v. subglobosis, pallide brunneis 20-25 \times 18-20, episporio minute aculeato; soris teleutosporiferis sparsis hypophyllis, ferrugineis, epidermide fissa velatis; teleutosporis ellipsoideis v. ovoideis apice rotundato-obtusis, paullo incrassatis, interdum papillatis 20-25 \times 15-20, episporio punctulato, castaneo, pedicello brevi hyalino.

Hab. in foliis Caraganæ Chamlagu, prope Sakawa in prov. Tosa Japoniæ (T. YOSHINAGA).

42. *Uromyces Sophoræ-japonicæ* Diet. in Bot. Jahrb. 1902, p. 47. — 873 Soris hypophyllis, sparsis, minutis, epidermide fissa cinctis v. semitectis, uredosporiferis cinnamomeis, teleutosporiferis obscure castaneis; uredosporis obovatis flavo-brunneis, spinulosis 26-34 \times 18-25, poris binis instructis; teleutosporis ellipticis, rarius subglobosis, apice plerumque conoideis, 35-47 \times 27-35, castaneis, irregulariter verrucosis, pedicellis longitudine sporas superantibus, hyalinis suffultis.

Hab. in foliis Sophoræ japonicæ, Tokyo Japoniæ (KUSANO).

43. *Uromyces Sophoræ-flavescentis* Kusano Bot. Mag. Tokyo 1904, 874 VIII, p. 203, fig. 3. — Uredosporis hypophyllis, indefinite sparsis, irregularibus, rufo-aurantiis pulverulentis, aparaphysatis; uredosporis

sporis globosis, subglobosis v. obovoideis, 20-25 μ . diam., 26 \times 22, grosse echinulatis, tunica tenui, contentu aurantio; poris germinat. 7-8; teleutosoris hypophyllis, discretis, sparsis v. circinantibus, uredosoro junctis v. separatis, irregularibus. 1 mm. diam., subinde confluentibus, nigricantibus v. brunneo-atris; teleutosporis inæqualibus obovoideis v. rarius subglobosis, compressione angulosis, 22-28 \times 20-22, tunica tenui, verrucosa, atro-brunnea.

Hab. in foliis Sophoræ flavescens var. galegoidis in horto bot. Tokyo Japoniæ.

44. **Uromyces Pittierianus** P. Henn. Fungi costaricensis I, in Hedw. 875 1902, p. 101. — Maculis rufo-brunneis, rotundatis; soris hypophyllis sparsis ad marginem interdum gregariis, minutis, ca. 1 mm. diam., pulverulentis, pallidis; uredosporis subglobosis, ellipsoideis v. ovoideis, flavidis v. pallescentibus, 9-12 μ . diam., episporio flavo, subverrucoso; teleutosporis intermixtis oblonge clavatis v. fusoides, apice haud incrassatis, obtusis, applanatis vel subacutiusculis, intus flavidis v. hyalinis 40-70 \times 20-25, episporio tenui, levi, hyalino; pedicello plus minus elongato, 50 \times 4, persistente hyalino.

Hab. in foliis Rubi prope Santa Maria de Dota Amer. centrale.

45. **Uromyces Rubi** Diet. et Holw. in Bot. Gaz. 1901, p. 327. — Ma- 876 culis circularibus, circ. 5 mm. diam., raro confluentibus luteis; soris uredosporiferis et teleutosporiferis ellipticis, obovatis v. globosis 23-35 \times 18-25, episporio hyalino spinuloso; teleutosporis ellipticis vel clavatis 26-35 \times 17-24, episporio minuto hyalino; pedicello brevi.

Hab. in foliis Rubi, Cuernavaca, Mexico (C. G. PRINGLE).

46. **Uromyces crassivertex** Diet. in Bot. Jahrb. 1903, pag. 624. — 877 Soris in pagina superiore foliorum, in circulos 5-15 mm. latos, irregulares laxè dispositis vel sparsis, in pagina inferiore singulis erumpentibus, præterea cauliculis, secus nervos foliorum et in caulibus haud raro confluentibus; soris uredosporiferis epidermide rupta cinctis, cinnamomeis; uredosporis ellipsoideis vel subglobosis 25-30 \times 20-25, brunneis echinulatis, poris ca. 6 instructis; soris teleutosporiferis primo semitectis, deinde nudis, pulvinatis, minutis, atris; teleutosporis cuneatis, ovoideis vel subglobosis, basi plerumque attenuatis, apice tunicatis vel conoideis, rarius rotundatis 30-43 \times 18-25, episporio levi superne usque 17 μ . incrassato castaneo, apice interdum dilutiore indutis.

Hab. in foliis *Lychnidis Miquelianæ* in prov. Musashi Japoniæ (KUSANO).

47. *Uromyces Basellæ* Syd. in Oest. bot. Zeitschr. 1902, n. 5. — 878

Æcidii amphigenis, maculis pallidis flavescentibus insidentibus, plerumque in greges rotundatos 2-5 mm. diam. laxè v. annulatim dispositis, minutis v. late ellipsoideis, subtiliter verrucosis, subhyalinis 22-27 μ . diam.; soris teleutosporiferis sparsis, minutis, punctiformibus, pulverulentis, obscure brunneis; teleutosporis ovatis, apice incrassatis (5-10 μ .), levibus, flavis, 30-40 μ 22-27; pedicello hyalino, apice leniter colorato, crasso, teleutosporam æquante.

Hab. in foliis vivis *Basellæ rubræ*, Pisang Ins. Manillæ.

48. *Uromyces giganteus* Speg. Dec. Mycol. ital. n. 30, Trott. in Ann. 879

Mycol. 1904, n. 4, p. 360, c. ic. — Soris in caulibus compactis, sparsis, per epidermidem erumpentibus eaque fissa cinctis, crassissimis, obscure fuscis, 3 cm. usque longis, 1,5-2 cm. latis; uredosporis non visis; teleutosporis variabilibus, ovoideis vel subsphæroideis, quandoque (frequenter) clavatis vel cylindraceis, tunica crassiuscula vestitis, levibus, interne granulosis, fuliginosis, 25-30 μ 15-20, 28-30 μ 18-22 vel sæpe 30-35 μ 13-18, pedicello 90-100 μ 5 rarius breviorè, fusco vel pallide luteo v. hyalino præditis.

Hab. in caulibus emortuis vivis *Schoberia* (Suædæ) maritimæ in Campo Martio, Venetiis, 29 martio 1879. — Var. *erythræus* Trotter l. c. c. ic.: soris teleutosporiferis profundioribus; teleutosporis subglobosis v. ovoideis, 25-35 μ 20-28, episporio pachydermo, sæpe inæqualiter crasso, vertice paullo crassiorè; pedicello hyalino, brevì 15-20 μ ., raro usque 90-100 μ . longo. — In caulibus vivis, hypertrophicis Suædæ fruticosæ, Scheik-Said Colonia erythrææ (TELLINI). Observante cl. Trotter l. c., tam species quam var. notis datis ab *U. Chenopodii*, quocum sæpe *U. giganteus* jungebatur, distinctæ.

49. *Uromyces Celosiæ* Diet. et Holw. in Bot. Gaz. 1901, p. 326. — 890

Soris hypophyllis sæpe in maculis indistinctis, luteis insidentibus, sparsis vel congestis, epidermide velatis; soris uredosporiferis cinnamomeo-brunneis; uredosporis brunneis ellipticis vel globosis sæpe obovatis, 27-34 μ 24-26, episporio crasso, spinuloso, poris germinationis 2; soris teleutosporiferis intense brunneis; teleutosporis elliptico-globosis, dense verrucosis, pallide brunneis, apice papillatis, 28-38 μ 22-30; pedicello hyalino sporæ æquilongo vel paullo longiore, exili, fugaci.

Hab. in foliis *Celosia latifolia*, Oaxaca Mexico.

50. *Uromyces Deeringia* Syd. in Ann. Mycol. vol. I, n. 4, 1903, 881 p. 324. — *Æcidii*s hypophyllis, maculis rotundatis vel irregularibus interdum leniter incrassatulis, flavescentibus insidentibus, in greges irregulares laxè dispositis vel paucis tantum irregulariter laxèque associatis, cylindræis margine parum inciso, tamen leniter recurvato; *æcidiosporis* angulato-globosis, verrucosis, hyalino-flavescentibus 22-28 μ . diam.; soris teleutosporiferis amphigenis, sparsis ut videtur (paucis tantum visis!) subinde juxta *æcidia* sitis, subpulverulentis, brunneis; teleutosporis ovatis vel ovato-oblongis, apice incrassatis, usque 8 μ ., levibus, dilute flavo-brunneis, 30-42 \times 19-26; pedicello hyalino, crasso, persistenti, usque 55 μ . longo.

Hab. in foliis *Deeringia indica*, in ins. Java et Luzon Philippinarum.

51. *Uromyces Saururi* P. Henn. Einige neue japan. Ured. III, in 882 Hedw. 1902, p. 19. — Maculis subrotundatis, gregariis, atro-fuscis, minutis; *æcidii*s hypophyllis sparsis punctiformibus, cupulatis, *æcidiosporis* subglobosis 15-25 \times 15-20, hyalino-fusculis; soris teleutosporiferis hypophyllis sparsis, minutis, fuscis; teleutosporis ovoideis, apice plus minus incrassatis, obtusis v. appianatis, 20-28 \times 15-22, episporio brunneo, levi; pedicello brevi clavato, brunneo, 10 \times 5-6.

Hab. in foliis *Saururi Loureiri*, Tosa Japonia.

52. *Uromyces Rickerianus* Arthur in Bull. of the Torr. bot. Club. 883 1902, pag. 227. — *Æcidii*s amphigenis, dense congestis; peridiis pallidis; *æcidiosporis* globosis vel oblongis, 16-22 \times 18-26, minute verrucosis, fere levibus; soris teleutosporiferis cum *æcidii*s intermixtis, ellipticis, 4 mm. long., epidermide grisea tectis, dein pulverulentis, brunneo-nigris; teleutosporis intense brunneis, globosis vel oblongis vel irregularibus, 20-25 \times 23-35, utrinque rotundatis, pedicello hyalino, fragili, brevissimo donatis.

Hab. in foliis *Rumicis Geyeri*, Teton Pass, Wy. America borealis.

53. *Uromyces tingitanus* P. Henn. in Annuaire Conser. et Jard. bot. 884 Genève, 1903-1904, p. 243. — Maculis sanguineis rotundatis vel effusis; soris teleutosporiferis amphigenis, sparsis v. aggregatis, rotundato-pulvinatis, firmis, atro-castaneis usque ad 1 1/2 mm. diam., interdum confluentibus; teleutosporis oblongo-ellipsoideis apice usque ad 10 μ . incrassatis, rotundatis v. papillatis, late brunneis,

levibus, 20-38 \times 17-22; pedicello valde elongato, persistenti, hyalino, usque ad 180 \times 4-5.

Hab. in foliis vivis Rumicis tingitani Ain Sefra, Oran Africae sept. (HOCHREUTINER). — Ab *U. Acetosæ*, cui affinis, differt sporis apice incrassatis et longe pedicellatis.

54. *Uromyces Fatouæ* P. Henn. Einige neue japan. Ured. III, in 885 Hedw. 1902, p. 18. — Maculis nullis; soris uredosporiferis hypophyllis sparsis, minutis punctiformibus, diutius tectis; uredosporis subglobosis v. ellipsoideis 15-22 μ . diam., brunneis, asperatis; soris teleutosporiferis hypophyllis sparsis, minutis atrofuscis, subpulverulentis; teleutosporis ovoideis, pallidius papillatis, intus granulatis, castaneis, 25-35 \times 20-25, pedicello hyalino 10-20 \times 3-4.

Hab. in foliis Fatouæ pilosæ var. subcordatæ, Tosa Japoniæ.

55. *Uromyces Stenorrhynchi* P. Henn. F. Amaz. III, p. 399 (Hedw. 886 1904). — Maculis fuscidulis, rotundatis; soris hypophyllis gregariis, paginam inferiorem occupantibus, rotundato-pulvinatis, firmis, applanatis, atris, 0,3-1 mm. diam.; uredosporis intermixtis ovoideis vel subellipsoideis, læte brunneis vel fuscidulis, aculeato-echinatis 25-28 \times 15-20; paraphysibus copiosis clavatis, membrana incrassatis, læte brunneis vel fuscis, 30-35 \times 10; teleutosporis ovoideis, apice rotundatis, haud incrassatis ca. 20-30 \times 12-18, episporio tenui, brunneo, levi, pedicello subclavato, hyalino-flavidulo, elongato, ca. 8-10 μ . crasso.

Hab. in foliis *Stenorrhynchi* sp. Yurimaguas Peru. — Notabilis species habitu potius *Melampsora*, soris firmis nigris, paraphysibus stipatis, teleutosporis rarioribus dignoscenda.

56. *Uromyces Microtidis* Cooke — Cfr. Sacc. Syll. VII, p. 519. — Syd. in Ann. Mycol. 1903, p. 324. — Uredosporis globosis, subglobosis, ovatis vel ellipsoideis, minute aculeato-verruculosis, flavo-brunneolis 22-30 \times 17-25.

Hab. in foliis vivis *Microtidis* porrifoliæ, Chatham Island (KEULL).

57. *Uromyces Joffrini* Delacr. in Bull. Soc. Mycol. 1902, p. 284 c. 887 ic. — Soris leviter bullatis mox apertis; uredosporis ovoideis, pedicellatis, levibus, fulvis, c. 30 \times 24; paraphysibus 35-40 μ . long. apice incrassatis atque circ. 8-10 μ . cr.; teleutosporis fuscis, levibus, granulatis, c. 45 \times 24, apiculo obtuso, subhyalino, 4-5 μ . alto ornatis.

Hab. in fructibus *Vanillæ planifoliæ*, Taiti.

58. *Uromyces reticulatus* (Thüm.) Bubák, Sitzungsber. Kgl. böhm. 888

Ges. Wissensch. 1902, pag. 22 (extr.) f. 49-54, *Æcidium reticulatum* Thüm. — Syll. VII, pag. 830. — Maculis luteolis; pycnidiis epiphyllis vel inter æcidium in pag. inf. commixtis, melleo-luteis; æcidiiis in maculis luteis, anguste oblongis congestis, luteis, initio pustuliformibus, dein breve cylindraceis, margine irregulariter lacerato recurvatoque, postremo libero; æcidiosporis valde irregularibus, globulosis, ovoideis vel oblongatis, plerumque polygonis, episporio tenui, minute verrucoso, $26,4-33 \times 22-24,2$; soris uredosporiferis minimis rotundis vel ellipsoideis, epiphyllis, epidermide tectis, teleutosporas etiamque continentibus; teleutosporis globosis vel ovoideis $22-30,8 \times 19,8-24,2$; soris teleutosporiferis rotundato-ellipticis, amphigenis, epidermide tectis, intense brunneis pulverulentis; teleutosporis globosis vel ovalibus v. ellipsoideo-oblongis $26,4-33 \times 19,8-26,4$, pallide castaneo-brunneis, episporio verrucosulo, crassiusculo, apice papilla hyalina conica ornatis; pedicello brevi, hyalino, fugaci.

Hab. in foliis *Allii victorialis*, Tirol, Kaprunerthal (DIETEL I, II, III), in Hungaria (SPIES II et III), in Sibiria (MARTIANOFF I, II?, III).

59. *Uromyces Mac-Owani* Bubák, Sitzungsber. Kgl. böhm. Ges. Wis- 889

sensch. 1902, p. 19, fig. 39-43. — Soris amphigenis minimis subrotundis in parvulos greges congestis, epidermide velatis, dein pulverulentis, pallide brunneis; teleutosporis rotundis, vel ovalibus vel piriformibus, sæpe angulosis $17,6-28,6 \times 15,4-26,4$, depressis, episporio crassiusculo donatis, luteo-brunneis, raro basi subconicis; pedicello hyalino, fugaci, sporæ æquilongo v. longiore.

Hab. in foliis *Scillæ prasinæ* prope Somerset East, Caput Bonæ Spei Africae merid. (MAC OWAN).

60. *Uromyces mogianensis* Bubák Sitzungsber. Kgl. böhm. Ges. Wis- 890

sensch., 1902, pag. 16, fig. 36-38. — Pycnidiis in maculis parvulis pallidis insidentibus, epiphyllis, raro hypophyllis, melleo-luteolis minimis; soris in maculis rotundatis insidentibus, sæpe amphigenis, circulatim dispositis rotundis, brunneo-nigris, pulverulentis; teleutosporis subrotundatis, raro ovoideis, episporio $6,6 \mu$. crasso donatis, $33-41,8 \times 33-35,2$ castaneo-brunneis, crasse verrucosis, papilla latiuscula hyalina apice ornatis; pedicello hyalino usque 20μ . longo, fugaci.

Hab. in foliis *Fritillariæ bucharicæ*, in regione fl. Seravschan prope Mogiam Turkestanæ (KOMAROW).

61. *Uromyces nyikensis* Syd. Ann. Mycol. 1904, p. 27. — Soris te- 891
leutosporiferis amphigenis, maculis nullis v. obsoletis insidentibus, sparsis, minutis, rotundatis v. oblongatis, ca. 0,4-1 mm. longis, interdum elongatis sublinearibusque, usque 2 mm. longis, epidermide plumbea semper tectis; teleutosporis variabilibus, subglobosis v. ovatis, sæpe angulatis, apice rotundatis, truncatis v. acutiusculis, mox vix incrassatis, mox magis incrassatis 2,5-6 μ ., levibus, dilute brunneis 19-27 \times 14-22, rarius usque 32 μ . longis, episporio tenui; pedicello hyalino, tenui, usque 30 μ . longo.

Hab. in foliis vivis Gladioli nyikensis, Nyika-Plateau Africae (WHYTE).

62. *Uromyces Sparaxidis* Syd. Ann. Mycol. 1904, pag. 27. — So- 892
ris uredosporiferis amphigenis, maculis nullis v. obsoletis insidentibus, sparsis, minutissimis, punctiformibus, aurantiaco-flavis; uredosporis globosis v. subglobosis, subtiliter verruculosus, hyalino-flavescentibus, 15,5-20 μ . diam.; soris teleutosporiferis amphigenis, sparsis, hinc inde paucis aggregatis, minutis, rotundatis vel oblongis, ca. 300-500 μ . longis, epidermide diu tectis, compactiusculis, atro-brunneis; teleutosporis variabilibus, plerumque ovatis v. angulato-ovatis, apice rotundatis, truncatis v. acutiusculis, incrassatis 4-8 μ ., basi plerumque attenuatis, levibus, brunneis 19-28 \times 14-20, episporio tenui; pedicello leniter brunneo, tenui, persistenti, usque 30 μ . longo.

Hab. in foliis vivis Sparaxidis lineatæ, Natal (J. M. Wood).

63. *Uromyces Antholyzæ* Syd. Ann. Mycol. 1904, pag. 27. — Soris 893
teleutosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, sparsis, minutis, rotundatis v. subrotundatis, epidermide diu tectis, atro-brunneis, compactiusculis; teleutosporis ovatis v. ovato-ellipsoideis, apice rotundatis v. obtuse attenuatis, incrassatis 4-7 μ . levibus, brunneis 21-30 \times 14-22, episporio subtenui; pedicello flavidulo, persistenti, crassiusculo, usque 32 μ . longo.

Hab. in foliis Antholyzæ abyssinicae in Abyssinia (SCHIMPER).

64. *Uromyces Melasphærulæ* Syd. Ann. Mycol. 1904, p. 28. — Soris 894
uredosporiferis amphigenis, maculis orbicularibus vel irregularibus, brunneolis, sæpe obsoletis insidentibus, sparsis, minutis, punctiformibus, rotundatis, dilute flavo-brunneolis v. flavis; uredosporis globosis vel ellipsoideis verruculosus, hyalino-flavescentibus 19-25 \times 16-22, episporio 2-2,5 μ . crasso; soris teleutosporiferis con-

formibus, epidermide diutius tectis, obscure griseo-brunneis; teleutosporis regulariter globosis vel subglobosis, apice semper rotundatis, incrassatis 3-6 μ ., levibus, brunneis, 22-26 \times 19-24, episporio ca. 2 μ . crasso; pedicello brunneo, usque 30 μ . longo.

Hab. in foliis *Melaspærulæ* gramineæ, Hopefield, in Capite Bonæ Spei (F. BACHMANN).

65. *Uromyces tosensis* P. Henn. in Hedw. 1903 p. (107). — Maculis ⁸⁹⁵ fuscis, rotundatis; soris plerumque hypophyllis, interdum epiphyllis, sparsis; minutis, ferrugineis, epidermide fusco velatis; uredosporis subglobosis, ovoideis v. ellipsoideis 18-24 \times 16-20, episporio fusco, aculeato-asperato; teleutosporis raro intermixtis, subglobosis v. ovoideis, apice haud incrassatis, 20-29 \times 20-24, episporio fusco, aculeato; pedicello 15-20 \times 3,5-4, hyalino fuscidulo.

Hab. in foliis *Commelinæ* communis, Sakawa-machi, Tosa Japoniæ (YOSHINAGA).

66. *Uromyces atro-fuscus* Dudley et Thomps. in Journ. of Mycol. ⁸⁹⁶ 1904, p. 55. — Amphigena; maculis parvulis, pallide luteis; soris subrotundatis vel breve ellipticis, sparsis vel congestis, non confluentibus paullo prominentibus, brunneo-nigris; uredosporis paucis ellipsoideis 16-17,5 \times 25-26, crassiuscule tunicatis, echinulatis; poris germinationis æquatorialibus; teleutosporis intense brunneis, obovatis vel globosis, plus minusve utrinque rotundatis, angulosis 19-26 \times 25-31, papillatis; pedicello hyalino spora duplo-triplo longiore, deciduo.

Hab. in foliis *Caricis Douglasii* prope Palmers, Mariposa County et in foliis *C. ustæ* Bear Valley, San Bernardino County in California.

67. *Uromyces chubutensis* Speg. Mycet. argent. ser. II, 1902, p. 60. ⁸⁹⁷ — Maculis nullis: acervulis epiphyllis, erumpenti-subsuperficialibus, nudis, nodulosis, compactis 3-5 \times 0,5-1 mm., atro-cinnamomeis; teleutosporis versiformibus, ellipticis v. obvatis, 25-30 \times 25, apice truncatis, obscure ferrugineis, levibus, pedicello gracili, recto 60-70 \times 5-6, vix pallidiore donatis.

Hab. ad folia languentia *Poa chubutensis* prope Carrenleofu in Argentina.

68. *Uromyces Cynosuroidis* Henn. in Hedw. 1902, p. (211). — Ma- ⁸⁹⁸ culis fuscidulis, irregulariter explanatis; soris amphigenis, sparsis v. gregarie confluentibus, oblongis vel striiformibus, fusco-cinnamomeis, pulverulentis; uredosporis subglobosis v. ovoideis, brunneis 20-32 \times 20-28, episporio dense aculeato-verrucoso, castaneo,

paraphysibus capituliformibus vel clavatis, obtuse rotundatis, brunneis 20-32 \approx 20-28, episporio dense aculeato-verrucoso, castaneo, paraphysibus capituliformibus v. clavatis, obtuse rotundatis, brunneolis, 30-40 \approx 14-17; teleutosporis oblonge ovoideis, apice incrassatis, verrucosis, brunneis 28-40 \approx 22-30; stipite usque 20 \approx 4-5 hyalino.

Hab. in foliis *Eragrostidis cynosuroidis*, Bassia. pr. Port Said Ægypti.

69. **Uromyces Microchloæ** Syd. Ann. Mycol. 1903, p. 15. — Soris 899 teleutosporiferis hypophyllis, minutissimis, ægre conspicuis, atobrunneis; uredosporis globosis v. subglobosis, subtiliter echinulatis, flavidis 16-20 μ . diam.; teleutosporis globosis, subglobosis v. ellipsoideis, utrinque rotundatis, apice non incrassatis, levibus, brunneis 24-30 \approx 21-27, episporio æquabili crassitudine, ca. 2-2,5 μ . cr.; pedicello hyalino, apice leniter brunneolo, usque 30 μ . longo.

Hab. in foliis *Microchloæ setaceæ*, Seriba Ghattas Africae centr. (G. SCHWEINFURTH).

70. **Uromyces phyllachoroides** P. Henn. in Hedw. 1900, p. (129). — 900 Soris uredosporiferis amphigenis, sparsis, rotundatis vel oblongo pulvinatis, pallide brunneis, epidermide rupta cinctis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus aurantiacis v. brunneis 20-22 \approx 18-20, episporio aculeato, castaneo, paraphysibus longe clavatis, hyalinis, usque ad 40 \approx 5-6; soris teleutosporiferis amphigenis, gregariis, punctiformibus vel striiformibus, diutius tectis, dein epidermide atra fissa velatis: teleutosporis oblonge ovoideis, subpiriformibus, interdum ellipsoideis v. subfusoides, apice plus minusve incrassatis, rotundatis v. subpapillatis, intus granulatis, brunneis episporio castaneo, levi v. subpunctulato 20-30 \approx 14-20, pedicello persistente hyalino v. flavo-fusoidulo 15-25 \approx 2-3.

Hab. in foliis *Cynosuri elegantis*, Bu-Quornen, Tunisia (G. SCHWEINFURTH).

71. **Uromyces Rottboelliae** Arthur in Bull. of the Torr. bot. Club. 901 1902, p. 228, *Uredo Rottboelliae* Diet. in Bot. Jahrb. 1902, p. 52. — Soris hypophyllis, oblongis, prominentibus, castaneo-brunneis, dein erumpentibus; uredosporis ovato-globosis 18-25 \approx 20-30, episporio 3 μ . crasso, aureo-brunneis, tuberculatis, poris 4 æquatorialibus, pedicello hyalino, delicatulo sporæ æquilongo, subpersistenti denatis; teleutosporis globosis, colore et magnitudine uredosporarum, episporio 2 μ . crasso, superne 8 μ . crassis, late subtruncatis,

inferne rotundatis; pedicello hyalino exili sporæ æquilongo, persistenti, donatis.

Hab. in foliis Rottboelliæ speciosæ, Jaunsar, Himalaya Indiæ (J. F. DUTHIE) (*Uromyces*) et in foliis Rottboelliæ compressæ var. japonicæ in horto botanico Tokyo Japoniæ (KUSANO) (*Uredo*).

72. *Uromyces Parnassiae* (DC.) Schroeter ap. Cooke Grevillea VII, 902 p. 334, Plowright, Brit. Ured. and Ustilag. p. 128 (1899), *Uredo* P. DC., Fl. franç. VI, p. 68, *Uromyces Valerianæ* Auct. et Syll. VII, p. 536 ex p. — *Æcidii* (*Æc. Parnassiae* Grev.) hypophyllis in maculis pallidis in soros rotundos dispositis; pseudoperidiis fulvo-flavidis, suburceolatis, margine crassiusculo; sporis pallidis; uredosporis (*Trichobasis Parnassiae* Cooke) sphaericis, rugulosis 20-25 μ . diam; teleutosoris amphigenis primo bullatis dein erumpentibus, sparsis sæpe confluentibus; teleutosporis subgloboso-ovoideis, brunneis, levibus, 25-30 \times 20-22.

Hab. in foliis Parnassiae palustris in Gallia et Britannia.

73. *Uromyces lupinicola* Bubák, Sitzungsber. Kgl. böhm. Ges. Wissensch., 1902, p. 8 (extr.) Ita vocandus *Urom. Lupini* Sacc. (1875) non Berk. et Curtis (1859), *Urom. Anthyllidis* Schröt. p. p., Harriot p. p., *Urom. Genistæ-tinctoriæ* Winter p. p., *Dicæoma Lupini* Hoffm. in schedis.

74. *Uromyces Valerianæ* (Schum.) Fuck. — Syll. VII, pag. 536. — Huc, teste Tranz., ducenda sunt *Urom. Prunellæ* Schneid. et *Uredo Parnassiae* West. Exs. (nec Schröt.) species ex errore de matrice conditæ.

ENDOPHYLLUM Lév. — Syll. VII p. 767, XVI p. 322, 1118.

1. *Endophyllum singulare* Diet. et Holw. in Bot. Gaz. 1901, p. 336. 903
— Soris cauliculis et foliiculis, conicis, usque 2 mm. longis, irregulariter erumpentibus; pseudoperidiis bene evolutis; sporis coacervatis ochraceis, ellipsoideis vel oblongis, apice sæpe acuminato 40-55 \times 24-30; episporio pallide brunneo apice conspicue conico, dense verrucoso.

Hab. in Ericacea quadam, Jalisco, Mexico (M. E. JONES).

CLASTOPSORA P. Dietel in Ann. Mycol. 1904, p. 26 (Etym. *clao* rumpo, *secedo* et *psora* scabies). — Sori teleutosporiferi primum plani ceracei (ut in genere *Coleosporio*) maturi hemisphaerici; pulverulenti, epidermide diu tecti, denique ea fissa cincti. Teleutosporæ

catenulatæ simplices. Catenæ sporarum immaturarum conglutinatæ, maturarum facile disjunctæ, fragiles.

1. *Clastopsora Komarowii* P. Diet. l. c. pag. 24, *Pucciniostele Clarkiana* Kom. et Tranz. — Syll. XVI, p. 321 — nec *Xenodochus Clarkianus* Barcl.

MELAMPSORA Cast. — Syll. VII pag. 586, IX p. 296, XI p. 183, XIV p. 287, XVI p. 1118 *).

1. *Melampsora Hirculi* Lindr. Myk. Mitth. V-X, 1902, p. 19 (Act. 904 Soc. Faun. Flor. Fenn. v. XXII), *Melampsora Saxifragæ* Lindr. olim. — Uredosoris ut plurimum hypophyllis subrotundis, flavidis, minutis, maculis peculiaribus nullis; paraphysibus copiosis, hyalinis, clavatis vel capitatis, $40-60 \times 20$, membrana apice usque 5 μ . crass.; uredosporis ellipsoideis v. ovoideis, $18-25 \times 14-19$, pluriguttulatis, hyalinis, spinulosis; teleutosporis in crustas carneas dein atro-brunneas minutas aggregatis, hypophyllis et cauliculis ex stratu hymeniali flavido oriundis, oblongis ex compressione angulosis, sursum inæqualiter rotundatis, $30-40 \times 8-12$, membrana flavida, superne obscuriore.

Hab. in foliis et caulibus *Saxifragæ Hirculi* in Fennia, Rossia et Helvetia.

2. *Melampsora Yoshinagai* P. Henn. in Hedw. 1903, pag. (108). — 905 Maculis fuscidulis rotundatis v. explanatis, uredosporis hypophyllis, sparsis vel gregariis, minutis, rotundato-applanatis, ceraceis, pallide fuscidulis; uredosporis ovoideis vel ellipsoideis, hyalinis, dense verrucosis, $15-22 \times 12-15$; paraphysibus clavatis, hyalinis, $20-40 \times 10-20$.

Hab. in foliis *Wikstrœmiæ japonicæ*, Mt. Yokogura, Tosa Japoniæ (YOSHINAGA).

3. *Melampsora argentinensis* Speg. Myc. Arg. ser. I. in Ann. Soc. 906 Cicut. Arg. 1899, p. 266. — Maculis nullis v. partis infectæ obsoletissime pallescentibus; soris amphigenis, quandoque sparsis, quandoque circinantibus, minutis, 0,25-0,50 mm. diam.; uredosporicis erumpenti-prominulis, pulverulentis e rufo aurantiacis; teleutosporicis applanatis, subsclerotiaceis, innatis; uredosporis globosis,

*) Plures species novas, præcipue ob notas heteroceciæ distinguendas, tam *Melampsoræ* quam aliarum Uredinearum, illustravit cl. H. Klebahn, quarum elenchus additur in calce familiæ præsentis.

20-25 μ . diam., episporio tenui dense minuteque papilloso vestitis, grosse 1-guttulatis, rufo-fumosis; teleutosporis subcylindræis, 60-80 \times 10-15, levibus apice truncatis, episporio antice incrassato atque infusato vestitis.

Hab. in foliis, petiolis caulibusque vivis *Crotonis hirti* pr. Cordoba Argentinae. — *Mel. Helioscopiæ* (Pers.) Cast. peraffinis sed notis plurimis, ut videtur, sat distincta.

4. *Melampsora microsora* Diet. in Bot. Jahrb. 1902, p. 50. — Soris 907 uredo- et teleutosporiferis minutissimis, nudis oculis singulis vix conspicuis, hypophyllis; uredosporis ellipsoideis, echinulatis, 15-20 \times 13-17; paraphysibus capitatis vel clavatis intermixtis; teleutosporis cuneato-prismaticis, 20-35 \times 10-18, apice vix incrassatis, brunneis.

Hab. in foliis *Salicis nipponicæ* prope Tokyo Japoniæ (KUSANO).

5. *Melampsora humilis* Diet. in Bot. Jahrb. 1902, pag. 50. — Soris 908 uredosporiferis in maculis flavidulis, fuscis v. violaceo-rubiginosis, hypophyllis, singulis etiam epiphyllis, sparsis v. in acervulos circulares, semicirculares irregularesve dispositis, minutis, aureis; uredosporis ellipsoideis v. obovatis, verrucosis, 17-20 \times 12-19; paraphysibus capitatis, superne usque 22 μ . latis, intermixtis; soris teleutosporiferis hypophyllis in maculis nigricantibus v. arescentibus, sparsis v. dense confertis, planiusculis, nigris, epidermide tectis; teleutosporis cuneatis v. subcubicis, 13-25 \times 6-15, episporio tenui, apice haud incrassato præditis.

Hab. in foliis *Salicis multinervis*, Tokyo Japoniæ (MIYOSHI et KUSANO).

6. *Melampsora epiphylla* Diet. in Bot. Jahrb. 1902, p. 50. — Soris 909 uredosporiferis in maculis melleis hypophyllis, minutissimis, sparsis; uredosporis ellipsoideis vel subglobosis, 12-15 \times 11-13, echinulatis, aurantiacis; paraphysibus clavatis intermixtis; soris teleutosporiferis epiphyllis, sub cuticula orientibus, sparsis vel sæpe confertis, atro-fuscis; teleutosporis prismaticis vel cuneatis, apice modice incrassatis, 30-45 \times 7-13.

Hab. in foliis *Salicis Shikokianæ*, Nikko Jap. (KUSANO).

7. *Melampsora coleosporioides* Diet. in Bot. Jahrb. 1902, p. 50. — 910 Soris uredosporiferis in pagina inferiori foliorum dispersis, minutis, aureis; uredosporis obovatis vel piriformibus, 20-27 \times 13-20, echinulatis; paraphysibus capitatis, superne 14-20 μ . latis intermixtis; soris teleutosporiferis amphigenis, minutis, sæpe confertis, flavo-rufis; teleutosporis prismaticis, 20-35 \times 7-13.

Hab. in foliis *Salicis babylonicæ*, prope Tokyo, Japoniæ (KUSANO).

8. *Melampsora Allii-populina* Kleb. in Zeitschr. f. Pflanzenkrankh. 1902, 911 XII, pag. 22 c. ic. — *Cæomosporis* in foliis *Allii ascalonici* etc. in maculis flavicantibus, in soros 1 mm. lat. confertis, globoso-ovoideis, subinde polygoniis, 17-23 \times 14-19, minute verrucosis, aurantiis; pycnidiis pustulas prominulas formantibus, 140 \times 100; uredosporis in pag. inf. *Populorum* vix 1 mm. diam. pulvinatis, rubro-aurantiis, epidermide cinctis; uredosporis oblongis v. ovato-clavulatis, 24-38 \times 11-18, laxe muriculatis; paraphysibus, clavatis, 14-22 \times 3-5; teleutosoris hypophyllis subcutaneis $\frac{1}{4}$ -1 mm. diam., atro-brunneis, opacis; teleutosporis irregulariter prismaticis utrinque rotundatis, 35-60 \times 6-10, membrana 1-1,5 μ . cr., brunnea.

Hab. I in foliis *Allii ascalonici*, II, III in foliis *Populi nigræ*, *P. canadensis* et *P. balsamiferæ*, Triglitz in Germania (JAAP).

9. *Melampsora Allii-Salicis albæ* Kleb. in Zeitschr. f. Pflanzenkrankh. 912 1902, XII, pag. 19 c. icon. — *Cæomosporis* in foliis caulibusque *Alliorum* in soros vivide aurantios aggregatis, in maculis flavidis sitis, 1 mm. diam. epidermide cinctis irregularibus sæpe polygoniis et isodiametris, 17-26 \times 15-18, membrana 1-1,5 μ . cr., minute verruculosa; pycnidiis depresso pustulatis 210 \times 120; uredosporis obovato-clavatis laxe muriculatis 24-30 \times 11-14, aurantiis; teleutosporis epidermide tectis brunneis cylindræis, stipatis, tenuitunicatis, 35-50 \times 6-8.

Hab. I in foliis *Allii vinealis*, *Schœnoprasi*, *ursini*, *Porri*, II, III in foliis *Salicis albæ* in Germania.

10. *Melampsora Abietis-Caprearum* Tubeuf, in Centr. f. Bakter. 1902, 913 II Abt., IX, pag. 241. — *Cæomosporis* (*Cæoma Abietis-pectinatae* Rees) in *Abiete pectinata*; uredo- et teleutosporis in foliis *Salicis capreae*.

Hab. in matricibus indicatis in Germania. — An sit morphologice diversa a *M. Laricis-Caprearum* Kl. non constat, teste Kleb.

MELAMPSORELLA Schröt. — Syll. VII p 596.

1. *Melampsorella Blechni* Syd. Ann. Mycol. 1903, p. 537. — Soris 914 uredosporiferis hypophyllis, maculis indeterminatis, magnam pinnularum partem vel totam pinnulam occupantibus, in vivo flavidis exsiccando brunneis insidentibus, sub epidermide evolutis, pseudo-peridio tandem apice minute aperto inclusis, flavidis, paraphy-

satis; uredosporis ovoideis, ellipsoideis v. ovoideo-oblongis, hyalinis convexo-echinulatis, $27-42 \times 18-24$, poris germ. nullis; teleutosporis intercellularibus in cellulas plures divisus, hyalinis.

Hab. in frondibus *Blechni* Spicant, pluribus locis ad montem Grosser Winterberg Saxoniae.

2. *Melampsorella Dieteliana* Syd. Ann. Mycol. 1903, p. 537. — Seris 915
uredosporiferis hypophyllis, maculis indeterminatis flavo-brunneis v. sæpius atro-brunneis insidentibus, sub epidermide evolutis, pseudoperidio tandem apice minute aperto inclusis, flavidis, aparaphysatis; uredosporis variabilibus, plerumque ovoideis vel oblongis, raro subglobosis, hyalinis, echinulatis, $25-48 \times 18-30$, poris germ. nullis; teleutosporis intracellularibus (ut videtur, paucis tantum visis) in cellulas plures divisus, hyalinis.

Hab. in frondibus *Polypodii* vulgaris, pluribus locis, ad montem Grosser Winterberg, præcipue pr. Schmilka Saxoniae. — Præcipue maculis matricis valde atris a *M. Blechni* distinguitur.

3. *Melampsorella Feurichii* Magnus in Berichte d. Deut. Bot. Gesell. 916
1902, pag. 609, t. XXVII (absque diagnosi). — Subepidermica, erumpens; uredosporis hyalinis brevissime stipitatis, poris germinaticis nullis præditis, oblongo-piriformibus, deorsum attenuatis v. ovoideis, 28×19 , paraphysibus clavatis circumdati.

Hab. in foliis *Asplenii* septentrionalis in Lusatia sup. Saxoniae (G. FEURICH).

4. *Melampsorella Kriegeriana* P. Magn. Bar. II. G. B. 1901, p. 531, 917
tab. 33 (absque diagnosi). — Teleutosporis in cellulis epidermicis, intracellularibus, hypophyllis, globoso-oblongis, 1-pluricellularibus; uredosporis ovato-ellipsoideis, verruculosi, subcutaneo-erumpentibus.

Hab. in frondibus *Aspidii* spinulosi, in Helvetia Saxonica.

PHACOPSORA Diet. — Syll. XIV p. 289, XVI p. 270.

1. *Phacopsora* (?) *Kraunhiæ* Diet. in Hedw. 1902, p. (178). — Ure- 918
dosporis obovatis v. ellipsoideis, flavescens, echinulatis, $20-24 \times 15-18$; soris teleutosporiferis hypophyllis, minimis, sparsis v. confertim dispositis in maculis brunneis vel atro-purpureis vel sine maculis, primo epidermide castanea tectis, deinde eam erumpentibus, griseis (in sicco tantum?); teleutosporis valde irregularibus, interdum clavatis vel fusiformibus vel cylindraceis, usque 25μ .

longis, 8-13 μ . latis, episporio tenui incolorato, vestitis, statim germinantibus.

Hab. in foliis Kraunhiæ floribundæ, Tokio Japoniæ (NISHIDA).

HYALOPSORA P. Magn. in Ber. der D. B. G. 1901, p. 582, absque diagnosi. (Etym. *hyalos* vitrum et *psora* scabies). — A genere *Melampsorella* differt, quoad uredosporas, ut *Schröterias* a *Phacopsora*.

1. **Hyalopsora Polypodii** (Pers.) P. Magn. l. c. — Hue ducenda est *Uredo Polypodii* Pers. e. p. — Syll. VII p. 857. — In *Cystopteride* fragili.
2. **Hyalopsora Polypodii-Dryopteridis** (Moug. et Nest) P. Magn. Hedw. 1902, pag. (224). — Ita nominanda *Uredo Aspidiotus* Peck: cfr. Syll. VII p. 858 et XI p. 228, seu *Hyalopsora Aspidiotus* (Peck) Magn. Bericht. Deutsch. Bot. Gesell. 1901, p. 582.
3. **Hyalopsora Adianti-Capilli-Veneris** (DC.) Syd. Ann. Mycol. 1903, 919 pag. 248, *Uredo Polypodii* ? *Adianti Capilli-Veneris* DC. in Fl. franç. VI, p. 81 (1815). — Soris uredosporiferis hypophyllis, in epiphyllis maculas plerumque angustas lineares efformantibus, minutis, ellipticis, secus nervos distributis, aurantiacis; uredosporis tenuiter tunicatis globosis, subglobosis, ellipsoideis vel angulato-ellipsoideis, punctatis, intus aurantiacis, 20-34 \approx 16-25, poris germinationis præditis; paraphysibus clavatis præsentibus; teleutosporis intracellularibus, 1-vel pluricellularibus, hyalinis, 8-11 μ . diam., membrana tenui.

Hab. in foliis *Adianti Capilli-Veneris* ad ripas fluminis Isonzo Istriæ (L. Gorz), Vittorio Veneto (BÉRENGER).

ZAGHOUANIA Pat. in Bull. soc. myc. de France 1901, p. 185 et 1902, p. 23. — Syll. XVI pag. 1120. — Sori erumpentes, subpulverulenti; pseudoperidia nulla; uredosporæ pedicellatæ, solitariae. Teleutosporæ (probasidia) unicellulares, ovoideæ, episporio hyalino, paullo incrassato, pedicellatæ, e quibus mox germinantibus promycelium (protophasidium) quadricellulare semiinternum, sporidiola sessilia gerens, oritur.

1. **Zaghouania Phillyreæ** Pat. in Bull. Soc. Myc. de Fr. 1901, p. 185 920 et 1902, pag. 23 cum icon., *Uredo Phillyreæ* Cooke — Syll. VII p. 856, *Æcidium Phillyreæ* DC. — Syll. VII p. 847 — *Cæoma Phillyreæ* Thüm. et Bagn. — *Æcidiis* plerumque numerosis, dense confertis, semiimmersis, bullas in foliis v. plagulas in ramis effor-

mantibus vel juvenilia tota deformantibus; pseudoperidiis paullulum introrsum incurvis; æcidiosporis versiformibus, sphaeroideis, oblongo-piriformibus vel sæpius ovoideis, 20-30 \times 14-18, episporio hyalino, alveolato-reticulato, contentu guttulis oleosis, luteo-aurantiacis farto; pycnidiiis lageniformibus penicillo ostiolarum valde evolutis, hyalino, sporulis ovoideis, 4-5 \times 2-3 hyalinis; soris uredosporiferis hypophyllis plerumque in maculis luteis vel lutescentibus fere solitariis seu gregariis, luteo-aurantiacis, primo epidermide tectis, demum liberis; uredosporis globosis vel ovoideis, 24-32 \times 12-16, episporio hyalino, echinulato, contentu oleoso, luteo-aurantiaco; teleutosporis (probasidiis) uredosporis immixtis, episporio crassiusculo, hyalino, verruculoso, oblongo-ovoides; promycelio (protobasidio), sporidiola subglobosa, 12-14 μ . diam., leviter sessilia, efformante.

Hab. pycnidia et æcidia in juvenilibus ramis foliisque, uredosporæ et teleutosporæ in foliis adultis Phillyreæ mediæ, latifoliæ, angustifoliæ in Tunisia (PATOUILLARD), Corsica (P. DUMÉE et R. MAIRE), Algeria (TRABUT), Britannia (COOKE), Italia (BAGNIS et D. SACC.), Austria (SYDOW) et Germania.

UREDINOPSIS P. Magn. — Syll. XI pag. 230, XIV pag. 290, XVI p. 271. — Teste cl. Plowright in Trans. Brit. Mycol. Soc. 1898-1899, p. 98, genus *Uredinopsis* Magnus cum anteriore *Milesia* cl. Buchana White collidit. Cfr. Syll. VII pag. 768. Nomen *Milesia* illustri MILES JOSEPHO BERKELEY est dedicatum.

1. *Uredinopsis americana* Syd. in Ann. Mycol. vol. I, 1903, p. 325. 921
— Soris uredosporiferis hypophyllis, minutis, plus minusve irregulariter sparsis, pseudoperidio dein fisso cinctis, flavis; uredosporis fusiformibus, apice in mucronem brevem vel elongatum acutum abeuntibus, 35-50 \times 11-16, membrana hyalina, tenui, striolato-verruculosis; soris teleutosporarum unicellularum hypophyllis, minutis, hemisphaericis, diu peridio inclusis; teleutosporis unicellularibus (v. uredosporis crassius tunicatis?) subpolyhedricis, 22-32 \times 15-22, pallide brunneolis, subtiliter verruculosi, ad marginem in angulos exeuntibus membrana ibique incrassata; pedicello plus minusve longo, deciduo; teleutosporis entoparenchymaticis 2-4-cellularibus, paucis tantum visis.

Hab. in foliis vivis Onocleæ sensibilis, Weston in Massachusetts Americæ bor. (H. M. NOYES et A. B. SEYMOUR).

2. *Uredinopsis Atkinsonii* P. Magn. in Hedw. 1904, p. 123, tab. II, 922

fig. 1-7 (absque diagnosi). — Soris hypophyllis, subepidermicis, pseudoperidio cinctis; uredosporis suboblongis, sæpe tenuiter mucronatis, subinde muticis in eodem soro, $42 \approx 13$ (muticis $26 \approx 14$); teleutosporis in parenchymate nidulantibus, amphigenis, bi-quadrifidularibus, ellipsoideis.

Hab. in foliis *Aspidii Thelypteridis*, Cayga Lake, Ithaca, Amer. bor. (ATKINSON).

3. **Uredinopsis Copelandi** Syd. Ann. Mycol. 1904, pag. 30. — Soris 923
uredosporiferis hypophyllis, plus minusve sparsis, minutis, pseudoperidio dein fissis cinctis, dilute brunneis; uredosporis fusiformibus, apice breviter acutiusculis, rarius in mucronem elongatum acutum abeuntibus, $33-44 \approx 10-13$, membrana hyalina, tenui, una serie aculeorum brevium obsessis; soris teleutosporarum unicellulare hypophyllis, minutis, hemisphaericis, diu peridio inclusis, brunneis; teleutosporis 1 cellularibus (vel uredosporis crassius tunicatis?) plerumque polyhedricis, $19-26 \approx 13-20$, subtiliter verruculosis, ad marginem in angulos exeuntibus, ibique membrana incrassata hyalina; teleutosporis entoparenchymaticis, 2-4-cellularibus.

Hab. in frondibus vivis *Athyrii cyclosori*, Sisson California (E. B. COPELAND).

4. **Uredinopsis Osmundæ** P. Magn. in Hedw. p. 123, t. II, f. 8-16 924
(absque diagnosi). — Soris hypophyllis majusculis, pseudoperidio et paraphysibus cinctis; uredosporis brevius vel longius mucronatis vel muticis, $42 \approx 13$ (mucronatis); teleutosporis 2-8 v. pluricellularibus, globulosis v. irregulariter ellipsoideis.

Hab. in foliis *Osmundæ cinnamomeæ*, Cajuga Lake, Ithaca, Amer. bor.

5. **Uredinopsis Corchoropsidis** Diet. in Bot. Jahrb. 1903, p. 628. — 925
Soris uredosporiferis minimis, nudo oculo inconspicuis, sparsis; pseudoperidio tenerrimo, diu clauso, paraphysibus arcuatis composito inclusis; uredosporis obovatis vel ellipsoideis, episporio incolorato echinulato præditis, sine poris, $17-23 \approx 10-17$; teleutosporis in parenchymate plantæ nutriticis irregulariter dispersis v. in acervulos laxè congestis, subglobosis vel oblongis, plerumque bi-vel 1-cellularibus, $12-24 \mu$ diam., episporio levi, dilute flavescenti indutis.

Hab. in foliis *Corchoropsidis crenatæ*, in Monte Amagi Japoniæ (NAMBU).

Sect. 2. Didymosporæ.

GYMNOSPORANGIUM Hedw. — Syll. VII pag. 737, IX p. 314, XI p. 205, XVI p. 314.

1. **Gymnosporangium aurantiacum** Syd. Ann. Mycol. 1904, p. 28. — 926

Soris teleutosporiferis foliicolis, sparsis, solitariis, vix hinc inde confluentibus, 0,7-1,5 mm. diam., pulverulento-mollibus vix gelatinosis, amœne aurantiacis; teleutosporis continuis v. 1-5-septatis, subglobosis usque oblongo-clavatis, apice plerumque rotundatis, ad septa leniter constrictis, 25-85 × 17-26, granulis numerosissimis, aurantiacis repletis; pedicello filiformi, hyalino, 200-350 μ . longo, in aqua tandem valde intumescente et usque 25 μ . crasso.

Hab. in foliis vivis Libocedri decurrentis, Mt. Eddy, Siskiyou Co., California (E. B. COPELAND).

2. **Gymnosporangium gracile** Pat. Champ. Algero-Tunisien. in Bull. 927

Soc. Myc. de France T. XVIII, fasc. I (1902). — Soris erumpentibus, parvulas columnas cylindraceas formantibus, sparsis, acutis, ochraceo-rubris, mollibus simplicibus, raro summitate incisis, 2-4 mm. long., 1 mm. latis; teleutosporis nunc oblongato-lanceolatis, 60-80 × 12-15, utrinque attenuatis, subhyalinis, 1-septatis, subinde 2-septatis, ad septa constrictis, nunc brevioribus et latioribus, 50-60 × 18, apice rotundatis, crassius tunicatis et brunneolis.

Hab. in ramulis Juniperi Oxycedri in montanis, Aurès Africae bor. — Species soris per ramulos non deformatos, ubique effusis breviter cylindraceis gracilibus sporisque lanceolatis, sæpe bi-septatis, mox dignoscenda.

3. **Gymnosporangium Nelsonii** Arthur in Bull. Torr. Bot. Cl. 1901, 928

p. 665. — Soris plerumque solitariis, raro congestis, globosis, pulvinato-cinnamomeo-brunneis, 1-2 mm. diam.; teleutosporis ellipticis vel anguloso-ellipticis, 22-26 × 41-52, obtusis, ad septa non constrictis, utrinque constrictis; pedicello filiformi, firmo, hyalino, 30-90 μ . longo.

Hab. in foliis Juniperi scopulorum, Sargent, Laramie Hills, Wyoming, Amer. bor.

4. **Gymnosporangium Oxycedri** Bres. Fungi Lusitanici in Broteria 929

1903, vol. II, p. 88. — Soris teleutosporiferis cartilagineo-gelatinosis, erumpentibus, gregariis, solitariis v. raro 2-3 connatis, verticalibus, conicis vel subcylindraceis, angulatis vel compressis, apice ut plurimum subcapitatis, ex aurantiaco fusciscentibus, 2-4 mm.

altis, basi 1-1,5 mm. cr.; teleutosporis aurantiacis, oblongo-sub-ellipsoideis vel subfusiformibus, 1-septatis, ad septa vix constrictis, 40-45 \times 18-21, rarissime 24 μ .; pedicello longissimo, hyalino, æquali, 5-6 μ . cr.

Hab. ad ramos Juniperi Oxycedri, in Lusitania. — *Gymnosporangio Sabinæ* proximum, a quo soris duplo minoribus et sporis strictioribus præcipue diversum.

PUCCINIA Pers. — Syll. VII p. 600, IX p. 298, XI p. 184, XIV p. 292, XVI p. 273. — *Jackya* Bub. Oest. bot. Zeitschr. 1902, p. 42 (pro *Pucc. Cirsii-lanceolati* Schröt. et *Pucc. Cirsii-eriphori* Jacky).

1. **Puccinia expansa** Link, Spec. pl. VI, 2, pag. 75 (1825) — Syd. 990
Mon. Ured. vol. I, p. 146: cfr. Sacc. Syll. VII p. 667, n. 2313 ex parte. — Soris teleutosporiferis amphigenis, plerumque hypophyllis, maculis flavescentibus v. brunneolis orbicularibus insidentibus, in greges orbiculares v. rarius irregulares, $\frac{1}{2}$ - $\frac{3}{4}$ cm. latos, densissime confertis confluentibusque, atro-brunneis; teleutosporis ovatis vel late ellipsoideis, utrinque late rotundatis, apice papilla minuta dilutiore instructis, medio non v. vix constrictis, levibus, brunneis, 30-40 \times 19-30; pedicello brevissimo, hyalino.

Hab. in foliis petiolisque vivis *Adenostylis albifrontis*, *alpinae*, *Senecionis aquatici*, *S. cordati*, *S. Doronici*, *S. subalpini*, in Austria, Hungaria, Helvetia, Italia, Hollandia, Britannia; in foliis *Senecionis lugentis* in California (HOLWAY).

2. **Puccinia Vernoniæ** Schw. Syn. N. Ann. Fr. n. 2926 (1831) Syd. 981
Mon. Ured. vol. I, p. 178. — Soris teleutosporiferis plerumque hypophyllis, maculis minutis flavescentibus vel purpureis, sæpe obsolete insidentibus, sparsis, hinc inde confluentibus, minutis, subrotundatis, mox nudis, pulverulentis, atro-brunneis; uredosporis plerumque immixtis globosis v. subglobosis, echinulatis, flavis 24-27 μ . diam.; teleutosporis oblongo-ellipsoideis, plerumque utrinque rotundatis, apice leniter incrassatis, medio non v. vix constrictis, intus granulosi, brunnei, 32-44 \times 20-25; pedicello hyalino, usque 120 μ . longo, sed deciduo.

Hab. in foliis vivis *Vernoniæ Baldwinii*, fasciculatæ, noveboracensis in America bor.

3. **Puccinia oaxacana** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 331 932
Sacc. Syll. XVI p. 1120 (nomen). — Syd. Mon. Ured. vol. I, p. 24, t. II, f. 21. — Soris teleutosporiferis hypophyllis, maculis minutis fuscis, plerumque insidentibus, sparsis minutis, compacti-

sculis, brunneis; uredosporis immixtis subglobosis, ellipsoideis vel ovatis, echinulatis, flavidis, 22-29 × 20-23; teleutosporis oblongo-ellipsoideis v. oblongis, apice rotundatis, non vel vix incrassatis, medio leniter constrictis, basi rotundatis vel attenuatis, levibus, pallide brunneis, 32-50 × 16-25, episporio tenuissimo; pedicello hyalino, persistenti, sporam æquante vel eam parum superante.

Hab. in foliis vivis *Baccharidis hirtellæ*, Oaxaca Mexico (HOLWAY).

4. ***Puccinia Baccharidis-hirtellæ*** Diet. et Holw. Bot. Gaz. XXI, 1901, 933 p. 331, Sacc. Syll. XVI pag. 1119 (nomen). — Syd. Mon. Ured. vol. I, p. 23, t. II, f. 20. — Soris teleutosporiferis hypophyllis, maculis irregularibus minutis fuscis, plerumque insidentibus, sparsis, minutis, compactiusculis, castaneo-brunneis, uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, pallide flavo-brunneis, 20-27 × 18-25; teleutosporis ellipsoideis, utrinque rotundatis, apice non vel lenissime incrassatis, medio leniter constrictis, subtiliter punctatis, dilute brunneis, 32-46 × 20-30; pedicello hyalino, tenui, usque 50 μ . longo, fragili.

Hab. in foliis vivis *Baccharidis hirtellæ*, Amecameca, Mexico (HOLWAY).

5. ***Puccinia Baccharidis-multifloræ*** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 331, Syd. Mon. Ured. vol. I, pag. 24, t. II, fig. 22. — Soris uredosporiferis plerumque hypophyllis, sine maculis, sparsis, minutis, dilute castaneis; uredosporis ellipsoideis vel ovatis, echinulatis, flavo-brunneis, apice cucullato-incrassatis, usque 7 μ . cr., 30-42 × 22-28; soris teleutosporiferis conformibus, pulverulento-compactiusculis, atro-brunneis; teleutosporis oblongis, apice rotundatis vel conico-attenuatis, valde incrassatis, usque 10 μ ., medio leniter constrictis, basi rotundatis vel sæpius attenuatis, levibus, flavo-brunneis, 38-60 × 21-30; pedicello hyalino, fragili, usque 60 μ . longo.

Hab. in foliis vivis *Baccharidis multifloræ*, Amecameca, Mexico (HOLWAY).

6. ***Puccinia cæomatiformis*** Lagh. in Syd. Mon. Ured. vol. I, p. 24, t. II, f. 24. — Soris teleutosporiferis amphigenis, maculis orbicularibus v. irregularibus brunneis, ca. 2-3 mm. latis, subinde confluentibus, insidentibus, plerumque sparsis vel hinc inde paucis aggregatis, rotundatis v. irregularibus, verruciformibus, majusculis, ca. 1-2,5 mm. diam., compactis, cæomatiformibus, pallidis; teleutosporis clavatis, apice rotundatis v. truncatis, incrassatis usque

8 μ ., medio constrictis, deorsum attenuatis, levibus flavidis, 70-135 \times 25-40; pedicello hyalino, apice valde inflato et usque 28 μ . lato, deorsum sensim attenuato, longissimo, usque 140 μ . longo, persistenti.

Hab. in foliis vivis Baccharidis spec. pr. Quito Æquatoriæ (LAGERHEIM).

7. **Puccinia subglobosa** Diet et Holw. in Bot. Gaz. XXXI, 1901, 936 p. 332. — Syd. Mon. Ured. vol. I, p. 181, t. X, f. 158. — Soris uredosporiferis amphigenis, plerumque hypophyllis, maculis indeterminatis, pallescentibus insidentibus, sparsis, minutissimis. punctiformibus, pulverulentis, castaneo-brunneis; uredosporis globosis, ellipsoideis vel ovatis, echinulatis, flavo-brunneis, 18-25 \times 10-22; soris teleutosporiferis conformibus, atris; teloutosporis late ellipsoideis, interdum subglobosis, utrinque rotundatis, apice non v. vix lenissime incrassatis, medio non v. vix constrictis, levibus, obscure castaneo-brunneis, subopacis, 28-40 \times 24-30; pedicello hyalino, sursum leniter incrassato, interdum obliquo, usque 55 μ . longo, subpersistenti.

Hab. in foliis vivis Viguiæ Palmeri, Mexico (HOLWAY).

8. **Puccinia punctoidea** Syd. Mon. Ured. vol. I, pag. 182, tab. XI, 937 fig. 159. — Soris teleutosporiferis plerumque epiphyllis, sine maculis, sparsis, punctiformibus, minutis, ca. 500-650 μ . diam., pulverulentis, atris; teleutosporis ellipsoideis v. ellipsoideo-oblongis, utrinque rotundatis, apice non incrassatis, medio plerumque leniter constrictis, levibus, brunneis, 35-46 \times 18-25; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis Viguiæ Pringlii pr. Zapotlan, Mexico (PRINGLE).

9. **Puccinia nanomitra** Syd. Mon. Ured. vol. I, p. 182, t. XI, f. 160. 938 — Soris teleutosporiferis amphigenis, præsertim epiphyllis, sine maculis, sparsis, minutissimis, punctiformibus, pulverulentis, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice papillula humili dilutiore auctis, medio non constrictis, verruculosus, atro-brunneis, opacis, 32-42 \times 25-32, episporio ca. 3 μ . crasso; pedicello hyalino, crasso, flexuoso, persistenti, usque 80 μ . longo.

Hab. in foliis vivis Viguiæ dentatæ, Oaxaca, Mexico (HOLWAY).

10. **Puccinia inopinata** Syd. Mon. Ured. vol. I, pag. 183, tab. XI, 939 f. 101. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, ca. 500 μ . diam., compactis, atro-brunneis; teleutosporis

oblongis vel oblongo-clavatis, apice rotundatis, valde incrassatis, 8-14 μ ., medio plerumque leniter constrictis, basi rotundatis vel attenuatis, levibus, dilute brunneis, apice pallidioribus, 32-54 \times 16-27; pedicello hyalino, persistenti, crassiusculo, usque 70 μ . longo.

Hab. in foliis vivis *Viguieræ stenophyllæ* var. *discoideæ*, Cordoba, Argentina (LORENTZ).

11. *Puccinia Ximenesiæ* Long in Bull. Torr. Bot. Cl. 1902, p. 114, 940
t. 5. — Syd. Mon. Ured. vol. I, p. 173. — Soris teleutosporiferis amphigenis, sine maculis, sparsis, rotundatis, ca. $\frac{1}{2}$ -1 mm. diam., subpulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 24-32 \times 20-27; teleutosporis late ellipsoideis, utrinque rotundatis, apice papilla lata humili instructis, medio non vel vix constrictis, levibus, atro-castaneis, opacis, 30-44 \times 25-32; pedicelle subhyalino, crasso, persistenti. sporam subæquante.

Hab. in foliis *Verbesinæ* (*Ximenesiæ*) *encelioidis*, Austin, Texas Americæ bor. (LONG, W. L. BRAY).

12. *Puccinia affinis* Syd. Mon. Ured. vol. I, p. 174, t. X, fig. 151. 941
— Soris teleutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, in epiphyllis sæpe perfecte annulatim dispositis, interdum confluentibus, minutis v. mediocribus, $\frac{1}{2}$ -3 mm. diam., primitus epidermide tectis, pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 20-27 μ . diam.; teleutosporis globosis, subglobosis vel late ellipsoideis, utrinque rotundatis, apice papilla dilutiore plana instructis, medio non constrictis, levibus, atro-brunneis, 32-46 \times 27-36; pedicello hyalino, flexuoso, crasso, persistenti, usque 110 μ . longo.

Hab. in foliis vivis *Verbesinæ trilobatæ*, Oaxaca, Mexico (HOLWAY).

13. *Puccinia cognata* Syd. Mon. Ured. vol. I, p. 172, t. X, f. 149, 942
Puccinia similis Long in Bull. Torr. Bot. Cl. 1902, p. 114, f. 4 nec Ellis et Ev. — *Æcidii* hypophyllis, irregulariter sparsis, albis, margine lacerato; *æcidiosporis* globosis, subglobosis v. ovatis, verruculosus, pallide flavis, 27-30 \times 20-27; soris uredosporiferis hypophyllis, maculis nullis v. obsoletis brunneolis insidentibus, sparsis, interdum aggregatis, minutis, punctiformibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 21-27 μ . diam. v. 24-30 \times 21-24; soris teleutosporiferis conformibus, atro-brunneis vel atris; teleutosporis ellipsoi-

deo-oblongis, apice rotundatis, incrassatis, usque 8 μ ., medio leniter constrictis, basi rotundatis, rarius leniter incrassatis, levibus, brunneis, 40-48 \times 22-27; pedicello subhyalino, sporam æquante.

Hab. in foliis vivis *Verbesinæ virginicæ*, Austin, Texas Americæ bor. (LONG).

14. ***Puccinia ferox*** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 333 — 943

Syd. Mon. Ured. p. 174, t. X, f. 152. — Soris teleutosporiferis amphigenis, folia incrassata et deformata reddentibus et sæpe ex toto obtegentibus, pulverulentis, irregularibus, magnis, confluentibus, brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio valde constrictis, subtiliter verruculosi, pallide brunneoli, 34-48 \times 18-26; pedicello hyalino, brevi.

Hab. in foliis vivis *Verbesinæ diversifoliæ*, Oaxaca, Mexico (HOLWAY).

15. ***Puccinia minutula*** Peck in 25 Rep. of New York State Mus. 944

p. 117. — Syd. Mon. Ured. vol. I, p. 152. — Soris teleutosporiferis hypophyllis, maculis suborbicularibus subinde confluentibus, flavis, centro sæpe brunneis v. purpureis insidentibus, aggregatis, confertis, minutis, atro-brunneis v. atris; teleutosporis oblongis, apice plerumque obtuse acuminatis, medio leniter constrictis, 40-58 \times 16-18; pedicello colorato, sporam æquante.

Hab. in foliis vivis *Solidaginis altissimæ*, Catskill mountains Americæ bor.

16. ***Puccinia glomerata*** Grev. in Berk. Engl. Flora V, p. 365 (1837) 945

— Syd. Mon. Ured. vol. I, p. 148, t. VIII, f. 125. — Soris teleutosporiferis amphigenis, maculis orbicularibus brunneis insidentibus, in greges rotundatos v. oblongos plerumque totam maculam occupantes, 3-6 mm. latos dense gregariis confluentibusque, sæpe circinatim dispositis, epidermide diutius tectis, tandem subpulverulentis, brunneis; teleutosporis ovato-oblongis v. oblongis, apice papilla minutissima dilutiore instructis, medio non v. vix constrictis, basi rotundatis v. leniter attenuatis, levibus dilute brunneis, 30-45 \times 16-24; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Senecionis Jacobææ* in Belgio, Britannia.

17. ***Puccinia recedens*** Syd. Mon. Ured. vol. I, pag. 146, tab. VIII, 946

f. 124. — Soris teleutosporiferis hypophyllis, maculis aridis orbicularibus v. irregularibus demum emortuis obscure brunneis dein centro atris purpureo-marginatis insidentibus, in quaque macula

sparsis vel paucis aggregatis, minutis, punctiformibus, compactis, obscure brunneis; teleutosporis clavulatis, apice rotundatis, incrassatis, 2,5-4 μ ., medio valde constrictis, basi semper attenuatis, levibus, pallide flavidis, subinde subhyalinis, 30-40 \times 12-16; pedicello hyalino, persistenti, usque 18 μ . longo; mesosporis paucis, 24-30 \times 12-18.

Hab. in foliis Senecionis spec. Ann Arbor, Michigan Americæ bor. (HOLWAY).

18. **Puccinia Senecionis** Lib. Crypt. Ard. exs. n. 92. — Syd. Mon. 947

Ured. vol. I, pag. 143. — *Æcidii*s hypophyllis, maculis flavescensibus vel brunneolis insidentibus, solitariis vel in greges minutos sine ordine dispositis, explanatis, albidis, margine irregulariter laciniato; *æcidiosporis* globoso-angulatis, hyalino-flavescensibus, punctatis 15-20 μ . diam.; soris teleutosporiferis hypophyllis, paucis in greges minutos sine ordine dispositis, minutis, punctiformibus, epidermide medio perforata tectis, atro-brunneis; teleutosporis ovatis v. late ellipsoideis, utrinque late rotundatis, apice non incrassatis, sæpe papilla minuta pallida instructis, medio non v. lenissime constrictis, levibus, brunneis, 24-30 \times 18-21; pedicello brevissimo v. subnullo, hyalino. — Cfr. Syll. VII, p. 667, n. 2313 ex p.

Hab in foliis vivis Senecionis Fuchsii, nemorensis, saracenici, in Germania, Austria, Helvetia et Gallia.

19. **Puccinia tasmanica** Dietel in Ann. Mycol. 1903, pag. 535. — 948

*Æcidii*s laxè gregariis, cupuliformibus, margine irregulariter lacinato donatis; *æcidiosporis* globoso-polyhedricis, 13-17 μ . diam., subtilissime verrucosis; soris teleutosporiferis *æcidii*s immixtis, atris, pulvinatis, confluentibus, epidermide fissa vel integra diu velatis; teleutosporis clavatis vel oblongis, apice rotundatis, truncatis vel conoideis, basi attenuatis, medio modice constrictis, 35-53 \times 18-25, episporio levi, apice usque 10 μ . incrassato castaneo, infra dilutius donatis, pedicello firmo, superne flavescens suffultis; adsunt etiam teleutosporæ uniloculares.

Hab. in caulibus folisque Senecionis vulgaris, IV, 1895, in Tasmania.

20. **Puccinia Millefolii** Fuck. Symb. myc. pag. 55, Syd. Mon. Ured. 949

I, p. 2, tab. 1, fig. 2. — Cfr. Sacc. Syll. VII, p. 687, n. 2370 ex p. — Soris teleutosporiferis amphigenis, maculis pallidis v. vix distinctis, minutis, rotundatis sed sæpe irregularibus, plerumque sparsis, compactis, obscure brunneis; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. leniter acutiusculis, incrassatis 4-8 μ .,

medio constrictis, basi rotundatis vel sæpius attenuatis, levibus, pallide brunneolis, $35-50 \approx 13-19$; pedicello apice flavidulo, crasso, persistenti, circa 40 μ . longo; mesosporis subinde paucis immixtis.

Hab. in foliis vivis Achilleæ Millefolii, A. setaceæ, in Germania, Hungaria, Italia, Britannia, Belgio, Hollandia.

21. **Puccinia Ptarmicæ** Karst. Myc. Fenn. IV, p. 41. — Syd. Mon. 950

Ured. vol. I, p. 3. — Cfr. Sacc. Syll. VII, p. 687, n. 2370 ex p. — Soris teleutosporiferis amphigenis, plerumque autem hypophyllis, maculis flavis v. flavo-brunneis usque 5 mm. longis insidentibus, minutis, punctiformibus, sed semper dense aggregatis et sæpe omnino confluentibus et tunc 1-3 mm. v. ultra longis, compactis, obscure brunneis; teleutosporis clavatis, apice rotundatis, valde incrassatis 5-10 μ ., medio constrictis, deorsum attenuatis, levibus, pallide brunneis, $36-54 \approx 17-24$; pedicello apice leniter brunneolo, crasso, persistenti, circ. 40 μ . longo; mesosporis obovatis v. piri-formibus interdum immixtis, $32-38 \approx 16-22$.

Hab. in foliis Achilleæ Ptarmicæ, cartilagineæ, in Germania, Belgio, Suecia, Fennia, Rossia.

22. **Puccinia Pyrethri** Rabh. in Herb. myc. n. 1990, Syd. Mon. Ured. 951

vol. I, p. 45. — Soris uredosporiferis plerumque hypophyllis, maculis nullis, sparsis, minutis, non confluentibus, rotundatis v. rarius oblongis, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis $20-32 \approx 16-24$; soris teleutosporiferis amphigenis, plerumque hypophyllis, interdum cauliculis, sine maculis, sparsis v. in caule confluentibus, minutis v. mediocribus, mox nudis, rotundatis, compactiusculis, atro-brunneis v. atris; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis apice incrassatis, usque 6 μ ., medio non vel vix constrictis, sublevibus vel subtiliter, præcipue ad apicem, verruculosus, castaneo-brunneis, $38-54 \approx 24-32$; pedicello hyalino, crasso, persistenti, usque 110 μ . longo.

Hab. in foliis vivis Chrysanthemi (Pyrethri) corymbosi, C. parthenifolii in Germania, Austria, Hungaria, Italia, Rossia, Romania, et Chrys. sinensis in Japonia.

23. **Puccinia seriata** Syd. Mon. Ured. vol. I, p. 162, tab IX, f. 142. 952

— Soris teleutosporiferis amphigenis v. sæpissime cauliculis, sine maculis, sparsis, aggregatis v. præsertim in caule longe seriatis, rotundatis, discoideis, ca. 1 mm. diam., compactiusculis, in caule sæpe omnino confluentibus et seriem angustam plus minusve elongatam efformantibus, atris; teleutosporis oblongis, utrinque rotun-

dati, apice incrassatis, usque 6 μ ., medio constrictis, subtiliter, præcipue ad apicem, verruculosi, brunnei 37-54 \times 18-25; pedicello hyalino, persistenti, usque 70 μ . longo.

Hab. in foliis, petiolis caulibusque Tanaceti spec. in Kurdistania (HAUSSKNECHT).

24. *Puccinia Anthemidis* Syd. Mon. Ured. Vol. I, pag. 7 (1902). — 953

Soris teleutosporiferis amphigenis vel cauliculis, sparsis, minutis, rotundatis v. irregularibus, compactis, atro-brunneis; teleutosporis oblongo-clavatis, apice rotundatis usque 6 μ . incrassatis vel conico-attenuatis et magis incrassatis, usque 10 μ ., medio constrictis, basi attenuatis, levibus, flavo-brunneolis, 32-54 \times 15-22; pedicello hyalino, crasso persistenti, sporam æquante.

Hab. in foliis caulibusque vivis *Anthemidis altissimæ* Lattes, Hérault Galliæ (LAGERHEIM).

25. *Puccinia Asteris-alpini* Syd. Mon. Ured. vol. I, p. 18. — Soris 954

teleutosporiferis hypophyllis, maculis minutis orbicularibus 1-2 mm. diam., flavidis v. brunneolis insidentibus, sparsis v. hinc inde aggregatis, non confluentibus, mediocribus 1-2 mm. diam., orbicularibus, diu epidermide nitida plumbea tectis, compactis, atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, valde incrassatis, usque 11 μ ., medio constrictis, basi plerumque rotundatis, levibus, dilute brunneis, apice obscurioribus 40-54 \times 19-25; pedicello hyalino, apice brunneolo, crasso, persistenti, usque 60 μ . longo; mesosporis paucis 40 \times 16.

Hab. in foliis vivis *Asteris alpini* in Helvetia. (MORTIER).

26. *Puccinia artemisiicola* Syd. Mon. Ured. vol. I, pag. 14, tab. I, 955

f. 11. — Soris teleutosporiferis amphigenis v. cauliculis, subinde maculis minutis flavis insidentibus, sparsis v. aggregatis confluentibusque, minutis, rotundatis v. irregularibus, epidermide fissa sæpe cinctis, pulvinatis, atro-brunneis; teleutosporis clavatis, apice plerumque rotundatis, raro acutiusculis, valde incrassatis, usque 11 μ ., medio constrictis, basim versus attenuatis, levibus, pallide fuscis, loculo inferiore pallidiore 14-19 μ . lato, superiore 19-27 μ . lato, totis 40-60 μ . long., rarius usque 70 μ . longis; pedicello hyalino v. apice flavidulo, crasso, persistenti usque 70 μ . longo.

Hab. in foliis caulibusque vivis *Artemisiæ campestris*, *A. austriacæ* in Germania, Austria, Hungaria, Russia.

27. *Puccinia artemisiella* Syd. Mon. Ured. vol. I, pag. 14, tab. 1, 956

fig. 12. — Soris teleutosporiferis hypophyllis, raro paucis etiam epiphyllis, maculis vix distinctis, irregulariter sparsis, rotundatis

v. irregularibus, minutis vel mediocribus, vix confluentibus, tomento folii sæpe obtectis, pulvinatis, atris; teleutosporis ellipsoideo-oblongis, oblongis v. oblongo-clavulatis, apice plerumque rotundatis, incrassatis 4-8 μ ., medio constrictis, basi attenuatis vel rotundatis, levibus, dilute castaneis 35-49 \times 14-21; pedicello hyalino, apice leniter brunneolo, crasso, persistenti, usque 70 μ . longo; mesosporis paucis circa 38 \times 18.

Hab. in foliis vivis *Artemisiæ vulgaris* prope Berolinum Germaniæ (SYDOW).

28. *Puccinia ferruginosa* Syd. Mon. Ured. vol. I, p. 13, t. 1, f. 10 ⁹⁵⁷ (1902). — Soris teleutosporiferis hypophyllis, maculis minutis orbicularibus brunneis v. flavo-brunneis insidentibus, minutis, punctiformibus, in greges minutos laxè vel densiuscule aggregatis, vix omnino confluentibus interdum etiam solitariis, in tomento folii nidulantibus, pulvinatis, obscure ferrugineis; teleutosporis oblongis v. clavatis, apice plerumque rotundatis, valde incrassatis, 5-8 μ . diam., medio constrictis, basi attenuatis, levibus, pallide flavis 35-46, rarius usque 54 \times 14-19; pedicello hyalino, crasso, persistenti, usque 50 μ . longo; mesosporis paucis 35- \times 14.

Hab. in foliis vivis *Artemisiæ vulgaris* var. *japonicæ*, Tokyo Japoniæ (SHIRAI).

29. *Puccinia Calendulæ* Mc. Alp. Proc. Linn. Soc. N. S. Wales 1903, ⁹⁵⁸ p. 558. — *Æcidiis* luteo-aurantiacis, congestis sæpe circinantibus 320-360 μ . diam.; pseudoperidiis margine reflexis; cellulis peridii polygonalibus, margine striatis 21-24 μ . diam.; *æcidiosporis* irregularibus, subglobosis vel polygonalibus minutissime echinulatis pallide aurantiacis, 14-17 \times 11-12; soris teleutosporiferis nigris, erumpentibus, immersis, sæpe confluentibus; teleutosporis luteo-brunneis, clavatis, ad septum constrictis, apice conicis rotundatis vel acutis episporio levi donatis, 36-52 \times 19-23; pedicello hyalino, persistenti 28-37 \times 7-8, apice usque 10 μ . lato; mesosporis teleutosporæ concoloribus, ellipsoideis vel piriformibus, apice conicis, 30-42 \times 21-23.

Hab. amphigena in foliis *Calendulæ officinalis*, Armadale et Killara, in Victoria, Australiæ.

30. *Puccinia conyzella* Syd. Mon. Ured. vol. I, p. 62, tab. IV, f. 51. ⁹⁵⁹ — Soris teleutosporiferis hypophyllis, sparsis, plerumque solitariis, majusculis, 2-3 mm. diam., rotundatis, compactis, obscure brunneis; teleutosporis clavatis, apice rotundatis, truncatis v. acutiusculis, valde incrassatis, usque 14 μ ., medio constrictis, basi at-

tenuatis, levibus, pallide flavo-brunneolis, $38-60 \approx 14-21$; pedicello hyalino v. apice flavidulo, crasso, persistenti, usque 45 μ . longo.

Hab. in foliis vivis *Conyzæ myriocephalæ* pr. Santiago Chile (NEGER).

31. **Puccinia confluens** Syd. Mon. Ured. vol. I, p. 81, t. V, f. 68. — 960

Soris teleutosporiferis plerumque hypophyllis, maculis irregularibus brunneis insidentibus, minutis v. mediocribus sed plerumque aggregatis et omnino confluentibus et tunc pustulas irregulares crassas usque 8 mm. longas efformantibus, epidermide fissa cinctis, pulvinatis, atris; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice incrassatis, usque 8 μ ., medio constrictis, levibus, intus granulosis, brunneis, $36-50 \approx 18-27$; pedicello hyalino, persistenti, sæpe flexuoso, usque 110 μ . longo.

Hab. in foliis vivis *Erigerontis macranthi* in Colorado Americæ bor. (BARTHOLOMEW).

32. **Puccinia inanipes** Diet. et Holw., Bot. Gaz. XXXI, 1901, p. 332 961

et p. 422. — Sacc. Syll. XVI p. 119 (nomen). — Syd. Mon. Ured. vol. I, p. 83, tab. V, fig. 70. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sine maculis, sparsis, minutis, pulverulentis, brunneis; uredosporis subglobosis vel ellipsoideis, echinulatis, dilute brunneis, $20-28 \approx 16-24$; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, sæpe papillula humillima lata instructis, medio non v. vix constrictis, levibus, obscure castaneo-brunneis, subopacis $32-42 \approx 27-34$; pedicello hyalino, crasso, persistenti, usque 75 μ . longo, 14 μ . lato, cavo.

Hab. in foliis vivis *Eupatorii brevipedis*, Oaxaca, Mexico (HOLWAY).

33. **Puccinia Espinosarum** Diet. et Holw. Bot. Gaz. XXXI, 1901, 962

p. 332. — Sacc. Syll. XVI, p. 1119 (nomen). — Syd. Mon. Ured. vol. I, p. 83. — Soris uredosporiferis amphigenis, maculis pallidis sæpe insidentibus, sparsis, minutis v. mediocribus, pulverulentis, brunneis; uredosporis ellipsoideis v. ovatis, echinulatis, flavo-brunneis $30-36 \approx 20-24$; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice sæpe papillula lata humili instructis, medio leniter constrictis, levibus, obscure castaneo-brunneis, subopacis, $38-50 \approx 30-36$, episporio crassiusculo; pedicello hyalino persistenti, usque 125 μ . longo, 12 μ . crasso, basi cavo.

Hab. in foliis vivis *Eupatorii Espinosarum*, Oaxaca, Mexico (HOLWAY).

34. *Puccinia Madiæ* Syd. Mon. Ured. vol. I, p. 121, tab. VI, f. 100. 963

— Soris teleutosporiferis amphigenis, sparsis, sine maculis, rotundatis, minutis, ca. 1 mm. diam., compactis, atris; uredosporis globosis v. subglobosis, subtiliter verruculosis, flavis 25-28 μ . diam.; teleutosporis oblongis v. clavatis, apice rotundatis et incrassatis, medio leniter constrictis, basi attenuatis, levibus, pallide brunneis, 35-68 \times 13-26; pedicello hyalino, crasso, persistenti, usque 60 μ . longo.

Hab. in foliis vivis *Madiæ sativæ*, *M. viscosæ* in Chile.

35. *Puccinia Zinniae* Syd. Mon. Ured. vol. I, p. 188, t. XI, f. 167. — 934

Soris teleutosporiferis hypophyllis, maculis irregularibus usque 1 cm. latis, medio brunneis flavo-marginatis insidentibus, minutis, punctiformibus, dense aggregatis, sed plerumque non confluentibus, pulvinatis, griseo-atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, incrassatis, usque 6 μ ., medio valde constrictis, basi plerumque rotundatis, levibus, pallide flavo-brunneis, 40-62 \times 14-24, loculis facile secedentibus; pedicello concolori, persistenti, usque 70 μ . longo.

Hab. in foliis vivis *Zinniae tenuifloræ*, Chapala Mexico (HOLWAY).

36. *Puccinia Actinomeridis* P. Magn. in Ber. Deutsch. Bot. Ges. 1901, 965 p. 295, t. XIII, f. 19-22. — Sacc. Syll. XVI, p. 1120 (nomen).

— Soris teleutosporiferis plerumque hypophyllis, sparsis v. hinc inde confluentibus, minutis v. mediocribus, pulverulentis, atris; uredosporis immixtis globulosis, subglobosis vel late ellipsoideis, subtiliter echinulatis, flavo-brunneis 21-25 \times 18-23; teleutosporis ellipsoideis, utrinque rotundatis, apice leniter papillato incrassatis, usque 5 μ ., medio non v. parum constrictis, punctatis, castaneo-brunneis 32-40 \times 21-27; pedicello hyalino, apice leniter brunneolo, subpersistenti, usque 70 μ . longo.

Hab. in foliis *Actinomeridis squarrosæ*, Potomac River, Washington Americæ bor.

37. *Puccinia corsica* R. Maire in Bull. Soc. bot. de France 1901, 966

tom. I, p. 214, tab. 13, fig. 6. — Soris uredosporiferis plerumque hypophyllis, in maculis flavis plerumque orbiculatim dispositis, cinnamomeo-brunneis, mox nudis, minutis; uredosporis globosis v. ovoideis 25-29 \times 18-24, episporio brunneo, subtiliter aculeolato, duobus poris prædito; soris teleutosporiferis minutissimis atris, diu tectis, inter soros uredosporiferos evolutis vel in maculis propriis irregulariter congregatis; teleutosporis ovoideis vel ellipsoi-

deis 28-39 \times 18-26, haud constrictis, episporio crassiusculo æquali, brunneo, subtilissime punctulato vel sublevi, utraque cellula poro varie posito prædita, pedicello hyalino brevissimo; pycnidiis æcidisque nullis.

Hab. in foliis vivis Aronici corsici prope Ghisoni et Vi-vario et in silvis Aitone Corsicæ.

38. **Puccinia Doronici** Niessl in Beitr. zur Kenntniss der Pilze p. 9. 967

Syd. Mon. Ured. vol. I, p. 75, tab. IV, fig. 60. — Soris teleutosporiferis hypophyllis, maculis orbicularibus v. irregularibus flavis usque 1 cm. diam. insidentibus, minutis, punctiformibus, in greges rotundatos v. irregulares usque $\frac{3}{4}$ cm. latos aggregatis, pulvinatis, compactis, atris; teleutosporis clavatis v. oblongo-clavatis, apice rotundatis v. truncatis, valde incrassatis, usque 11 μ ., medio constrictis, basi attenuatis, levibus, dilute brunneis, apice pallidioribus, 38-54 \times 16-24; pedicello hyalino v. hyalino-flavidulo, crasso persistenti, usque 55 μ . longo.

Hab. in foliis vivis Doronici austriaci in Austria.

39. **Puccinia dorenicella** Syd. Mon. Ured. vol. I, p. 74, t. IV, f. 59. 968

— Soris uredosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, sparsis, minutis, pulverulentis, flavo-brunneolis; uredosporis globosis v. subglobosis, echinulatis, flavis 24-28 μ . diam.; soris teleutosporiferis amphigenis, sparsis, minutissimis, punctiformibus, pulverulentis, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio plerumque non constrictis, basi plerumque rotundatis, rarius leniter attenuatis, subtilissime verruculosi, brunneis 26-38 \times 16-22, episporio tenui; pedicello hyalino, brevi, deciduo.

Hab. in foliis caulibusque vivis Doronici austriaci prope Laibach Carniolæ (Voss).

40. **Puccinia Galactitis** Syd. Mon. Ured. vol. I, p. 86, t. V, f. 75. — 969

Soris teleutosporiferis hypophyllis, maculis orbicularibus 1-3 mm. latis, purpureo-brunneis depressis insidentibus, sparsis, interdum paucis aggregatis, rotundatis 1-1,5 mm. diam., firmis, compactis, tectis, griseo-brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. acutiusculis, incrassatis, usque 8 μ ., medio leniter constrictis, basi plerumque attenuatis, levibus, flavo-brunneis 36-46 \times 16-19; pedicello hyalino crasso, persistenti, usque 55 μ . longo.

Hab. in foliis vivis Galactitis tomentosæ pr. Coimbra Lusitanicæ (MOLLER).

41. **Puccinia Galatellæ** Syd. Mon. Ured. vol. I, p. 86, t. V, f. 76. — 970

Soris teleutosporiferis foliicolis v. cauliculis, sparsis v. aggregatis, confluentibus et usque 5 mm. longis, striiformibus, epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis v. leniter acutiusculis, valde incrassatis, usque 14 μ ., medio constrictis, basi attenuatis, levibus, pallidissime brunneolis 32-58 \times 16-20; pedicello hyalino, crasso, persistenti usque 60 μ . longo.

Hab. in foliis caulibusque vivis Galatellæ punctatæ, Marseille Galliæ (RIEDEL).

42. **Puccinia Otopappi** Syd. Mon. Ured. vol. I, p. 129. — Soris te- 971

leutosporiferis epiphyllis, rarius paucis hypophyllis, sine maculis, sparsis v. ad nervos interdum confluentibus 0,5-1 mm. diam., pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. late ellipsoideis, echinulatis, dilute-brunneis, 24-30 \times 21-27; teleutosporis late ellipsoideis, utrinque rotundatis, apice papillula humillima concolori vel leniter dilutiori instructis, medio non constrictis, levibus, atro-brunneis, opacis, 38-46 \times 27-32; pedicello hyalino persistenti, crassiusculo, sporam subæquante.

Hab. in foliis vivis Otopappi alternifolii, San Jose Pass, Limestone Hills, Mexico (PRINGLE).

43. **Puccinia Marianæ** Syd. in Hedw. 1901, pag. 127 et Mon. Ured. 972

vol. I, p. 48, tab. III, fig. 42. — Soris teleutosporiferis amphigenis, maculis indeterminatis irregularibus flavis v. obsoletis insidentibus, sparsis vel irregulariter aggregatis et interdum paucis confluentibus, minutis, rotundatis, compactiusculis, atris; teleutosporis plerumque oblongis v. oblongo-clavulatis, interdum ellipsoideis, apice rotundatis v. raro leniter acutiusculis, leniter incrassatis, usque 8 μ ., medio leniter constrictis, basi rotundatis v. rarius attenuatis, levibus, brunneis 40-66 \times 19-27, episporio 4 μ . crasso; pedicello subhyalino, apice flavo-brunneolo, crasso, persistenti recto vel flexuoso, usque 150 μ . longo; mesosporis interdum paucis immixtis.

Hab. in foliis vivis Chrysopsidis Marianæ, Sanibel Island Florida (S. M. TRACY).

44. **Puccinia Batesiana** Arth. in Bull. Torr. Bot. Cl. 1901, p. 661, 973

Syd. Mon. Ured. vol. I, p. 94. — *Æcidii*s hypophyllis, in greges minutos dispositis, longiusculis; acidiosporis subglobosis, verruculosus, pallidis 18-26 μ . diam.; soris teleutosporiferis plerumque hypophyllis, maculis minutis 2-3 mm. diam., rotundatis v. irregula-

ribus brunneis insidentibus, in greges minutos dispositis, compactis, pulvinatis, atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. sæpe attenuatis, valde incrassatis, usque 12 μ ., medio non v. parum constrictis, basi attenuatis, levibus, dilute brunneis 40-62 \approx 12-18; pedicello flavido, 10-25 μ . longo.

Hab. in foliis vivis *Heliopsidis* scabræ in Jowa et Nebraska Americæ bor.

45. **Puccinia Rhapontici** Syd. Mon. Ured. vol. I, p. 139, tab. VIII, 974 f. 120. — Soris teleutosporiferis amphigenis, sine maculis, sparsis minutis, rotundatis, non confluentibus, diutius epidermide cinerea tectis, demum nudis, pulverulentis, atro-brunneis; teleutosporis subglobosis, late ellipsoideis v. rarius oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. raro parum constrictis, subtiliter verruculosi, obscure castaneo-brunneis, 24-35 μ . diam. vel rarius usque 35-46 μ . longis, 20-24 μ . latis, episporio 3 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Rhapontici* pusilli in regionibus subalpinis jugi Sanin Libani (BORNMÜLLER).

46. **Puccinia obducens** Syd. Mon. Ured. vol. I, p. 38, t. III, f. 36. 975 — Soris teleutosporiferis hypophyllis, omnino confluentibus et crusta crassiuscula totam folii superficiem obducentibus, pulverulentis, obscure brunneis; uredosporis immixtis, perpaucis tantum visis, globosis vel subglobosis, ca. 22 μ . diam., flavo-brunneolis; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non incrassatis, medio constrictis, verrucosis, castaneo-brunneis, 32-46 \approx 19-28; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Centaureæ ruthenicæ*, fluv. Seravshan super. Turkestanæ (KOMAROW).

47. **Puccinia pencana** Syd. Mon. Ured. vol. I, p. 41, t. III, f. 37. — 976 Soris uredosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis vel mediocribus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, brunneis 25-29 μ . diam.; soris teleutosporiferis conformibus, minutis, atro-brunneis; teleutosporis ellipsoideo-oblongis, apice rotundatis, non incrassatis, medio plerumque leniter constrictis, basi rotundatis, subtilissime verruculosi, castaneo-brunneis, 30-45 \approx 22-27, episporio ca. 2,5-3 μ . crasso; pedicello sæpe sporâ longiore, sed valde deciduo, hyalino.

Hab. in foliis vivis *Centaureæ bulbosæ* pr. Conception Chile (F. W. NEGER).

48. **Puccinia vestita** Syd. Mon. Ured. vol. I, p. 42, t. III, f. 38. — 977

Soris uredosporiferis amphigenis, sine maculis, sparsis, nunquam confluentibus, minutis, punctiformibus, semper epidermide plumbea tectis; uredosporis globosis v. subglobosis, echinulatis flavis, 22-27 μ . diam.; soris teleutosporiferis omnino conformibus; teleutosporis subglobosis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter punctatis, obscure castaneo-brunneis, 30-40 \times 25-30, episporio circiter 2,5 μ . crasso; pedicello hyalino, tenui, sæpe flexuoso, usque 65 μ . longo.

Hab. in foliis vivis *Centaureæ myriocephalæ* ad Schaklava in monte Kuh Sefin ditionis Erbil Kurdistaniae Assyriacæ (BORNMÜLLER).

49. *Puccinia Centaureæ* Mont. Fl. Mosq. p. 226, Syd. Mon. Ured. 978 pag. 39. — Cfr. Sacc. Syll. VII, pag. 633, n. 2210 et pag. 709, n. 2466. — Soris uredosporiferis plerumque hypophyllis, maculis flavis v. brunneolis v. obsoletis, minutis, sparsis, interdum confluentibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, brunneis 22-30 \times 16-28; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosus, castaneo-brunneis 24-40 \times 16-27, episporio tenui; pedicello hyalino, tenui, plerumque brevissimo, interdum autem elongato.

Hab. in foliis vivis *Centaureæ Adami*, americanæ, asperæ, atratæ, aurantiacæ, axillaris, badensis, Calcitrapæ, cheiracanthæ, conglomeratæ, coriaceæ, dealbatæ, decipientis, Endressii, exaratæ, Fenzlii, glomeratæ, ibericæ, Jaceæ, maculosæ, melitensis, Meryonis, nervosæ, nigræ, nigrescentis, paniculatæ, phrygiæ, pseudo-phrygiæ, rhenanæ, salonitanæ, Scabiosæ, solstitialis, spinulosæ, unifloræ, in Germania, Austria, Hungaria, Italia, Gallia, Hispania, Lusitania, Belgio, Hollandia, Britannia, Dania, Suecia, Norvegia, Fennia, Rossia, Serbia, Romania, Asia minori, Sibiria, America bor.

50. *Puccinia Cyani* (Schleich.) Pass. in Rabh. Fg. europ. n. 1767, 979 Syd. Mon. Ured. vol. I, pag. 38. — Cfr. Sacc. Syll. VII, p. 633, *Puccinia suaveolens* (Pers.) Rostr. f. *Cyani* Wint. — Soris uredosporiferis plerumque hypophyllis, sine maculis, sparsis v. confertis, minutis, orbicularibus v. ellipticis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ovatis, subtiliter echinulatis, flavo-brunneis 22-30 \times 19-24; soris teleutosporiferis amphigenis,

sparsis, minutis, punctiformibus, pulverulentis, atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtilissime verruculosus, castaneo-brunneis, 30-35 \times 22-27, raro usque 40 μ . long.; pedicello hyalino, brevi.

Hab. in foliis caulibusque vivis *Centaureæ Cyani* in Germania, Austria, Helvetia, Italia, Gallia, Hollandia, Belgio, Suecia et Serbia.

51. *Puccinia Microlonchi* Syd. Mon. Ured. vol. I, p. 122. — Soris 980
uredosporiferis amphigenis, sine maculis, sparsis, rotundatis, cinamomeis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis, 24-27 μ . diam.; soris teleutosporeis amphigenis, sparsis, non confluentibus, rotundatis, ca. 1 mm. diam., epidermide fissa cinctis, primo hemisphæricis, demum pulverulentis, castaneo-brunneis; teleutosporis ellipsoideis v. ovato-oblongis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, castaneo-brunneis, 30-42 \times 19-26, episporio ca. 25 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis *Microlonchi salmantici*, Testa di Gargano Italiae (MARTELLI).

52. *Puccinia Centrophylli* Syd. Mon. Ured. vol. I, p. 104, tab. VI, 981
f. 91. — Soris teleutosporeis hypophyllis, sine maculis, sparsis, mediocribus 1-2 mm. diam., rotundatis v. subrotundatis, epidermide plumbea centro demum irregulariter fissa semper tectis, atris, pulverulentis; uredosporis immixtis globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis, dein brunneis 24-28 μ . diam.; teleutosporis forma variabilibus, plerumque ellipsoideis v. oblongis, apice rotundatis v. truncatis, non v. lenissime incrassatis, medio non constrictis, basi rotundatis, levibus v. subtilissime punctatis, obscure brunneis, 32-48 \times 15-28, episporio ca. 2,5 μ . crasso; pedicello hyalino, tenui, usque 50 μ . longo, sed deciduo.

Hab. in foliis vivis *Centrophylli cretici*, *C. syriaci* in ins. Creta.

53. *Puccinia Scolymi* Syd. Mon. Ured. vol. I, p. 141. — Soris ure- 982
dosporiferis amphigenis, sine maculis, irregulariter sparsis, minutis, pulverulentis, brunneis; uredosporis globosis vel subglobosis, echinulatis, flavo-brunneis 24-30 μ . diam.; soris teleutosporeis amphigenis, sine maculis, sparsis, rotundatis, ca. 1 mm. diam., pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non incrassatis, medio non constrictis,

punctulatis, castaneis, 30-45 \times 24-30, episporio tenui; pedicello hyalino, tenui, usque 40 μ . longo, sed caduco.

Hab. in foliis vivis Scolymi grandiflori in Sicilia (SCALIA) et Sc. hispanici in Syria (BORNMÜLLER)..

54. **Puccinia Acarnæ** Syd. Mon. Ured. vol. I, p. 130, t. VII, f. 110. 983

— Soris teleutosporiferis amphigenis, sine maculis, in tomento foliorum nidulantibus, sparsis, hinc inde confluentibus, orbicularibus, mediocribus 1-1,5 mm. diam., primo interdum compactiusculis, tandem pulverulentis, atris v. atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis 23-27 μ . diam.; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice incrassatis, usque 8 μ ., medio non v. parum constrictis, subtiliter punctatis, brunneis 35-54 \times 21-30; pedicello hyalino, persistenti, usque 60 μ . longo.

Hab. in foliis vivis Pienomi Acarnæ in Italia, Dalmatia, Syria, Kurdistania, Persia, Afghanistan, Algeria.

55. **Puccinia Atractylidis** Syd. Mon. Ured. p. 18, tab. I, f. 14. — 984

Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, orbicularibus circa 1 mm. diam., pulverulentis, epidermide fissa cinctis, atris; teleutosporis oblongis, ovatis v. oblonga subclavulatis, apice rotundatis, incrassatis usque 6 μ ., medio non v. raro parum constrictis, basi late rotundatis v. etiam leniter attenuatis, subtiliter verrucosis, amœne castaneo-brunneis 40-54 \times 24-30; pedicello hyalino, persistenti, crasso, usque 75 μ . longo.

Hab. in foliis vivis Atractylidis comosæ, in saxosis ad Brummana Libani in Syria (BORNMÜLLER).

56. **Puccinia Bardanæ** Corda Icon. IV, p. 17 (1840), Syd. Mon. Ured. 985

vol. I, p. 113. — Cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. — Soris uredosporiferis primariis epiphyllis, maculis orbicularibus v. irregularibus insidentibus, sparsis, interdum confluentibus, magnis, 1-5 mm. latis, rotundatis v. irregularibus, planis, epidermide fissa cinctis, pulverulentis, cinnamomeis; soris uredosporiferis secundariis, amphigenis, sine maculis, minutis, circiter $\frac{1}{2}$ -1 mm. diam., sparsis v. gregariis, orbicularibus, epidermide fissa cinctis, pulverulentis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, dilute brunneis 26-30 \times 22-27; soris teleutosporiferis amphigenis, plerumque hypophyllis, sine maculis, sparsis v. gregariis, minutis, $\frac{1}{2}$ -1 mm. diam., rotundatis, pulverulentis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis,

medio plerumque leniter constrictis, subtiliter verruculosus, obscura brunneis 30-42 \times 22-27; pedicello hyalino, brevi.

Hab. in foliis vivis Lappæ majoris, minoris, nemorosæ, officinalis, tomentosæ, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Suecia, Fennia, Rossia, Romania.

57. **Puccinia Onopordi** Syd. Mon. Ured. vol. I, p. 128. — Soris te- 986
leutosporiferis amphigenis, sine maculis, omnino in tomento foliorum absconditis, sparsis vel aggregatis, minutis vel mediocribus, atro-brunneis; uredosporis immixtis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis, 24-28 μ . diam. vel 27-31 \times 18-24; teleutosporis ellipsoideis v. ovato-ellipsoideis, rarius oblongis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, punctatis, brunneis 35-48 \times 23-32, episporio ca. 2,5 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis vivis Onopordi Cardunculi, Aintab Syriæ.

58. **Puccinia Acanthii** Syd. Mon. Ured. vol. I, p. 129. — Soris ure- 987
dosporiferis plerumque hypophyllis, maculis obsoletis insidentibus, sparsis, minutis, pulverulentis, pallide brunneis; uredosporis globosis v. subglobosis, echinulatis, brunneis 22-26 μ . diam.; soris teleutosporiferis conformibus, obscura brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, punctatis, brunneis, 25-34 \times 20-24, episporio tenui; pedicello hyalino, brevissimo.

Hab. in foliis vivis Onopordi Acanthii, prov. Posen Germaniæ.

59. **Puccinia Tinctoriæ** P. Magn. in Abhandl. der Nat. Ges. Nürnberg 988
XIII, p. 37 (1900), Syd. Mon. Ured. vol. I, p. 150; tab. VIII, f. 127. — Soris uredosporiferis amphigenis, maculis obsoletis pallidis insidentibus, sparsis, minutis, rotundatis, pulverulentis, obscura cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, 24-35 \times 19-26; soris teleutosporiferis amphigenis, conformibus, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosus, brunneis, 27-42 \times 19-27; pedicello hyalino, usque 14 μ . longo.

Hab. in foliis vivis Serratulæ tinctoriæ, coronatæ, heterophyllæ in Germania, Austria, Italia, Gallia, Suecia et Serr. centauroidis in Sibiria.

60. **Puccinia Serratulæ-oligocephalæ** Syd. Mon. Ured. vol. I, p. 149, 989

tab. VIII, fig. 126. — Soris uredosporiferis amphigenis, plerumque hypophyllis, per totam superficiem foliorum sparsis, medio-cribus, subcircularibus, planis, epidermide lacerata cinctis, pulverulentis, cinnamomeis; uredosporis globosis, echinulatis, flavo-brunneis, 21-27 μ . diam.; soris teleutosporiferis hypophyllis, sparsis, interdum confluentibus, irregularibus, 1-2 mm. latis, epidermide plumbea diutius tectis, demum pulverulentis, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosus, castaneo-brunneis, 35-40 \times 27-30; pedicello hyalino, usque 15 μ . longo.

Hab. in foliis vivis *Serratulæ oligocephalæ*, Aintab Syriæ (HAUSSKNECHT).

61. ***Puccinia inclusa*** Syd. Mon. Ured. vol. I, p. 56, tab. III, f. 43. 990

— Soris uredosporis hypophyllis, in lana foliorum nidulantibus, sparsis, minutis, rotundatis, cinnamomeis; uredosporis globosis v. subglobosis, subtilissime echinulatis, dilute brunneis 24-32 μ . diam., soris teleutosporiferis conformibus, atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosus, læte castaneis, 35-40 \times 24-28, episporio tenui; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Cirsii* (Cnici) undulati in Kansas Americæ bor. (BARTHOLOMEW).

62. ***Puccinia Benedicti*** Syd. Mon. Ured. vol. I, p. 61, tab. IV, f. 49. 991

— Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, brunneis; uredosporis globosis v. subglobosis, echinulatis, dilute brunneis, 22-27 μ . diam.; poris germinationis tribus instructis; soris teleutosporiferis conformibus, atris, teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, 30-40 \times 22-27, episporio tenui; pedicello hyalino, tenui, sporam subæquante, deciduo.

Hab. in foliis vivis *Cnici benedicti*, in horto botanico Belgrad Serbiæ (N. RANOJEVIC).

63. ***Puccinia obtegens*** (Lk.) Tul. in Ann. Sc. nat. IV, p. 87 (1854), 992

Syd. Mon. Ured. vol. I, pag. 53: cfr. Sacc. Syll. VII, p. 633, n. 2209, p. p. — Pycnidiis hypophyllis, confertis, totam foliorum superficiem obtegentibus, grati odoris, intense melleis; soris uredosporiferis et teleutosporiferis primariis hypophyllis, totam superficiem occupantibus, minutis, confertis, sæpe confluentibus, pulverulentis, rufo-fuscis, demum obscurioribus; soris uredosporiferis

et teleutosporiferis secundariis hypophyllis, sparsis non confluentibus, minutis, atro-brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, dilute brunneis, 21-28 μ . diam.; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis vel basi leniter attenuatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosus, brunneis, 26-42 \approx 17-25, episporio tenui; pedicello hyalino, tenui, brevi.

Hab. in foliis vivis Cirsii arvensis in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Fennia, Rossia, Sibiria et in America bor.

64. **Puccinia Cardui-pycnocephali** Syd. Mon. Ured. vol. I, p. 34. t. III, 993 fig. 35, D. Sacc. Myc. ital. n. 1085. — Soris uredosporiferis hypophyllis, sine maculis, sparsis, minutis, dilute brunneis; uredosporis globosis v. subglobosis, subtilissime echinulatis, dilute brunneis, 22-26 μ . diam.; soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, in tomento plantæ nutriticis nidulantibus, brunneis; teleutosporis oblongis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, levibus, dilute brunneis, 38-50 \approx 16-23, episporio tenui; pedicello hyalino, tenui, usque 40 μ . longo, sed deciduo.

Hab. in foliis vivis Cardui pycnocephali, Testa di Gargano Italiæ (U. MARTELLI, A. FIORI).

65. **Puccinia galatica** Syd. Mon. Ured. vol. I, pag. 34. — Soris teleutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, minutis, pulverulentis, atris; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, dilute brunneis 22-28, μ . diam., teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque parum constrictis, subtiliter punctatis, obscure brunneis, 30-45 \approx 22-28, episporio ca. 3 μ . crasso; pedicello hyalino, tenui, usque 30 μ . longo.

Hab. in foliis vivis Cardui pycnocephali var. albidii, in Ponto Galactico Asiæ minoris (BORNMÜLLER).

66. **Puccinia Cnici-oleracei** Pers. apud Desm. Catal. des plant. omises, 995 p. 24, 1823, Syd. Mon. Ured. p. 58, tab. III, f. 47, *P. spectabilis* Otth. — Sacc. Syll. XIV, p. 314. — Soris teleutosporiferis hypophyllis, maculis orbicularibus usque 5 mm. diam., pallidis insidentibus, minutis, circinatis, sed plerumque in greges usque 5 mm. latos orbiculares diu tectos omnino confluentibus, compactis, brunneis; teleutosporis clavatis, apice plerumque rotundatis, rarius conico-acutiusculis, valde incrassatis, 5-10 μ ., medio constrictis, basi at-

tenuatis; levibus, flavo-brunneis, 38-56 \times 14-21; pedicello hyalino flavidulo, crasso, persistenti, usque 50 μ . longo.

Hab. in foliis vivis *Cirsii ochroleuci*, oleracei, lanceolati, *Cardui crisp*i (?) in Germania, Italia, Helvetia, Belgio, Britannia, Fennia.

67. **Puccinia kermanensis** Syd. Mon. Ured. vol I, p. 57, tab. III, 996

f. 45. — Soris uredosporis amphigenis, sparsis, sine maculis, rotundatis, mediocribus, circiter 1 mm. diam., epidermide fissa cinctis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, dilute brunneis, 24-32 μ . diam.; soris teleutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, interdum subconfluentibus, mediocribus, 1-2 mm. diam., pustuliformibus, pulverulentis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, non incrassatis, medio non constrictis, basi plerumque rotundatis, verrucosis, castaneo-brunneis, 37-54 \times 19-27, episporio circiter 3-3,5 μ . crasso; pedicello hyalino, fragili, usque 35 μ . longo.

Hab. in foliis vivis *Cirsii bracteosi*, spectabilis in prov. Kerman Persiae aust. (BORNMÜLLER).

68. **Puccinia Cirsii** Lasch in Rabh. Fg. europ. n. 89, Syd. Mon. 997

Ured. vol. I, pag. 55: cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. — Soris uredosporiferis amphigenis, sparsis, minutis, mox nudis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis, ellipsoideis v. ovatis, echinulatis, dilute brunneis, 22-28 \times 19-24; soris teleutosporiferis conformibus, atro-brunneis v. atris; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, subtiliter verruculosus, castaneo-brunneis, 25-38 \times 17-25, episporio tenui; pedicello hyalino.

Hab. in foliis vivis *Cirsii acaulis*, altissimi, bulbosi, californici, cani, discoloris, *Drummondii*, *Erisithalis*, *heterophylli*, japonici, monspessulani, oleracei, palustris, rivularis, ruthenici, spinosissimi, tatarici, in Germania, Austria, Hungaria, Helvetia, Italia, Hispania, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Norvegia, Fennia, Rossia, Sibiria, Japonia et in America bor.

69. **Puccinia Echinopsis** D. C. Fl. franç. VI, p. 57, Syd. Mon. Ured. 998

vol. I, p. 75. — Sacc. Syll VII, p. 711, sub *P. Echinopsis* Haszl. — Soris uredosporiferis amphigenis, plerumque epiphyllis, maculis nullis v. obsoletis insidentibus, sparsis, plerumque non confluentibus, mediocribus, orbicularibus, pulverulentis, cinnamomeis; uredosporis

globosis, echinulatis, dilute brunneis, 24-27 μ . diam; soris teleutosporiferis amphigenis, plerumque epiphyllis, sine maculis, sparsis, raro confluentibus, mediocribus 1-1,5 mm. diam., hemisphærico-prominentibus, epidermide fissa cinctis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosus, dilute brunneis, 32-46 \approx 18-27; pedicello hyalino brevi, tenuissimo.

Hab. in foliis caulibusque vivis *Echinopsis banatici*, E. Ritro, E. sphærocephali, in Germania, Austria, Hungaria, Italia, Serbia, Rossia.

70. *Puccinia Fuckelii* Syd. Mon. Ured. vol. I, p. 103, tab. VI, f. 90, 990

P. Compositarum f. *Jurineæ* Fuck. in Fg. rhen. n. 345. — Soris uredosporiferis epiphyllis, maculis nullis v. obsoletis insidentibus, sparsis, minutis, rotundatis, epidermide lacerata cinctis, pulverulentis, ferrugineis, uredosporis globosis v. subglobosis, subtiliter echinulatis, brunneis, 19-27 μ . diam.; soris teleutosporiferis conformibus, usque 1 mm. diam., atro-brunneis teleutosporis ellipsoideis v. ellipsoideo-oblongis, utrinque rotundatis, apice non incrassatis, medio non vel raro lenissime constrictis, levibus, castaneo-brunneis, 35-48 \approx 21-27; pedicello hyalino, tenui, deciduo usque 30 μ . longo.

Hab. in foliis vivis *Jurineæ cyanoidis* pr. Badenheim Nassoviæ in Germania (L. FÜCKEL).

71. *Puccinia Carduncelli* Syd. Mon. Ured. vol. I, p. 33. — Soris te- 1000

leutosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis $\frac{1}{2}$ -1 mm. diam., rotundatis vel oblongis, subpulverulentis, atris; uredosporis immixtis subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 25-32 \approx 19-26; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque crasso; pedicello hyalino, brevissimo.

Hab. in foliis *Carduncelli cærulei*, in Sicilia.

72. *Puccinia Cousiniæ* Syd. Mon. Ured. vol. I, p. 62, tab. IV, f. 52. — 1001

Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, orbicularibus, convexis, 1-1,5 mm. diam., atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis, 21-27 μ . diam.; teleutosporis ovatis v. ovato-ellipsoideis, apice rotundatis, rarius leniter attenuatis, non v. parum incrassatis, usque 4 μ ., medio non v. vix constrictis, basi rotundatis, subtiliter punctatis, castaneo-brunneis, 37-54 \approx 21-30; pedicello hyalino, brevi, tenui, deciduo.

Hab. in foliis vivis Cousiniæ anomalæ, bicoloris, bu-phthalmoidis, contumacis, fallacis, libanoticæ, Onopordi in Syria, Armenia, Turkestan et Persia.

73. **Puccinia Pinaropappi** Syd. in Hedw. 1901, p. 127 et Mon. Ured. 1002
vol. I, p. 132. — Soris uredosporiferis amphigenis, maculis minutis flavis rotundatis insidentibus, sparsis, minutis, epidermide fissa cinctis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, aculeatis, dilute brunneis, 22-28 μ . diam.; soris teleutosporiferis conformibus, atris v. atro-brunneis; teleutosporis ellipsoideis, ovato-ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio non constrictis, basi rotundatis, subtilissime verruculosi v. tantum punctatis, obscure brunneis, 32-40 \times 21-28; pedicello hyalino, crassiusculo, brevi, deciduo.

Hab. in foliis vivis Pinaropappi rosei, Austin, Texas (LONG).

74. **Puccinia Pyrrhopappi** Syd. Mon. Ured. vol. I, p. 138. — Soris 1003
uredosporiferis amphigenis, maculis nullis v. obsoletis pallidis aut brunneis insidentibus, sparsis, quandoque circulariter dispositis, minutis, orbicularibus, non confluentibus, pulverulentis cinnamomeis; uredosporis globosis, subglobosis v. ovatis, echinulatis, flavo-brunneis, 22-27 μ . diam. v. 22-27 \times 17-21; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosi, fuscis, 30-40 \times 19-25; pedicello hyalino usque 15 μ . longo.

Hab. in foliis vivis Pyrrhopappi scaposi in Kansas (BARTHOLOMEW).

75. **Puccinia Stobææ** Mac Owan. — Sacc. Syll. VII, pag. 615. — 1004
var. **Woodii** Syd. Mon. Ured. vol. I, p. 160, tab. IX, fig. 138. — Soris hypophyllis, in epiphyllis maculas orbiculares purpureo-brunneas generantibus, sparsis; uredosporis globosis, regularibus, echinulatis, obscure brunneis, 20-28 μ . diam.; teleutosporis late ellipsoideis, rarius suboblongis, apice valde incrassatis usque 11 μ ., sed semper late et obtuse rotundatis nec productis, basi rotundatis, medio non v. lenissime constrictis, obscure brunneis, 43-57 \times 27-38; pedicello hyalino, persistenti, usque 54 μ . longo, 6 μ . cr., basi tenuiore.

Hab. in foliis vivis Stobææ speciosæ ad Port Natal Africae austr. (WOOD).

76. **Puccinia Acanthospermi** Henn. in Hedw. 1902, p. 296. — Ma- 1005

culis rotundatis, fuscis; soris hypophyllis, aggregatis, minutis pulvinatis, ferrugineis, plerumque in circulos 1-2 mm. diam. dispositis; teleutosporis clavatis vel subfusoides, apice paullo incrassatis, rotundato-obtusis vel apiculatis, flavo-brunneis, 30-40 × 13-24, septo plus minus constrictis; pedicello subclavato, fuscidulo, persistente, 10-25 × 3-5, episporio levi, brunneo.

Hab. in foliis *Acanthospermi xanthioidis*, in horto botanico, S. Paulo Brasiliæ. — *P. Acanthospermi* Syd. Ann Myc. 1903, p. 17 non differt. Hæc in eadem matrice, Venezuela.

77. *Puccinia Acroptili* Syd. Mon. Ured. vol. I, pag. 4, tab. I, f. 4, 1902. — Soris uredosporiferis amphigenis, sine maculis, sparsis, non confluentibus, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, dilute brunneis, 22-27 μ . diam.; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtilissime verruculosus, dilute brunneis, 35-42 × 19-27; pedicello hyalino, usque 28 μ . longo.

Hab. in foliis vivis *Acroptili Pieridis* in Kurdistania, Persia (HAUSSKNECHT, BORNMÜLLER).

78. *Puccinia Ainsliæ* Syd. Mon. Ur. vol. I, p. 6 (1902). — Soris 1907 teleutosporiferis hypophyllis, maculis orbicularibus vel suborbicularibus fuscis circ. 2-3 mm. diam., insidentibus, minutis, 50-750 μ . diam., rotundatis, in macula annulariter dispositis, compactis, pulvinatis, atro-brunneis; teleutosporis oblongis v. oblongo-clavatis v. ovato-oblongis, apice rotundatis, truncatis v. conico-attenuatis, valde incrassatis, usque 12 μ ., medio constrictis, basi plerumque attenuatis, levibus, dilute flavo-brunneis apice obscurioribus, 32-45 × 14-20; pedicello flavido persistenti, usque 60 μ . longo.

Hab. in foliis vivis *Ainsliæ gracilis* in prov. Hupe Sinarum (A. HENRY).

79. *Puccinia Aplopappi* Syd. Mon. Ured. vol. I, p. 8, tab. I, f. 7 1908 (1892). — Soris teleutosporiferis amphigenis, maculis orbicularibus v. irregularibus flavidis insidentibus, solitariis, sparsis v. in greges minutos aggregatis, subinde confluentibus, rotundatis circa 1 mm. diam., pulvinatis, atro-castaneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis v. leniter acutiusculis, valde incrassatis, usque 12 μ ., medio constrictis, basi plerumque attenuatis, levibus, dilute castaneo-brunneis, 40-64 × 16-28; pedicello hyalino, crasso, persistenti, usque 140 μ . longo.

Hab. in foliis vivis *Aplopappi spinulosi*, squarrosi, in Montana et California Americæ bor. (Mc CLATCHIE).

80. *Puccinia Zægæ-crinitæ* N. Speschnew Fungi transcaspici et tur- 1009
 kestanici 1901, p. 9, tab. I, f. 22-26. — Maculis in pag. sup. et
 inf. foliorum, fuscis, subrotundatis, sparsis, inflatis 1-5 mm. diam.;
 soris uredosporiferis irregulariter dispositis, rotundatis, primo epi-
 dermide velata, pallida tectis, postremo cinctis, pulvinatis brun-
 neolis uredosporis globosis, ellipsoideis v. ovoideis, sempiterne
 poris germinationis 2-3 ad mediam altitudinis sporæ dispositis,
 sine papilla, episporio minute verrucoso, brunneis, 20-24 × 19-20;
 soris teleutosporiferis minutis, rotundatis, atro-fuscis, sparsis, raro
 confluentibus, prominulis; teleutosporis subellipsoideis, clavatis,
 medio septatis, non constrictis, apice mediocr. incrassatis 30-36 ×
 24-28; episporio flavo-brunneo, levissime verrucoso; pedicello hya-
 lino. persistente, sporam longitudine æquante vel eam superante.

Hab. in foliis caulibusque *Zægæ crinitæ*, in Rossia asiat.

81. *Puccinia Xylorrhizæ* Arth. in Bull. Torr. Bot. Cl. 1901, p. 662, Syd. 1010
 Mon. Ured. vol. I, p. 185. — Soris teleutosporiferis amphigenis,
 maculis flavis insidentibus, dense circinatis dispositis, minutis, ro-
 tundatis, epidermide rupta cinctis, mox nudis, pulvinatis, atris;
 uredosporis paucis interdum immixtis, globosis v. ellipsoideis, fla-
 vis, verrucosis, 24-26 µ. diam.; teleutosporis oblongis, apice ro-
 tundatis et parum incrassatis vel conico-attenuatis et valde in-
 crassatis vel conico-attenuatis et valde incrassatis, usque 10 µ.,
 medio constrictis, basi plerumque rotundatis, levibus, brunneis, 40-
 65 × 20-27; pedicello persistenti, crasso, flavescenti, usque 100 µ.
 longo, interdum lateraliter disposito.

Hab. in foliis vivis *Xylorrhizæ glabriusculæ* in Wy-
 ming Americæ bor.

82. *Puccinia Wyethiæ* (Peck) Ell. et Ev. in North Am. Fg. n. 2987, 1011
Uredo Wyethiæ Peck. — Sacc. Syll. VII, p. 863. — Syd. Mon.
 Ured. vol. I, pag. 184, tab. XI, f. 162. — Soris uredosporiferis
 amphigenis, maculis plerumque nullis, sparsis, sed sæpe numero-
 sis, minutis, pulverulentis, pallide fuscis; uredosporis globosis sub-
 globosis v. late ellipsoideis, echinulatis, brunneis, 30-40 × 23-30;
 soris teleutosporiferis amphigenis, sparsis, interdum aggregatis
 confluentibusque, minutis v. mediocribus, 0,5-1,5 mm. diam., ro-
 tundatis, epidermide lacerata cinctis, pulverulentis, atris; teleuto-
 sporis ellipsoideis v. oblongis, utrinque rotundatis, apice non in-

crassatis, medio non v. vix constrictis, dense punctatis, læte castaneis, $30-45 \times 18-27$; pedicello hyalino, deciduo, brevissimo.

Hab. in foliis vivis Wyethiæ angustifoliæ in Colorado et California Americæ bor.

83. *Puccinia Stizolophi* Syd. Mon. Ured. vol. I, pag. 158, tab. IX, 1012

f. 136. — Soris teleutosporiferis amphigenis, sine maculis, sparsis mediocribus v. majusculis, 1-3 mm. diam., subrotundatis v. irregularibus, pustuliformibus, epidermide plumbea diutius tectis, demum ea fissa cinctis, pulverulentis, atris; uredosporis immixtis, globosis, ellipsoideis v. ovatis, subtiliter echinulatis, flavo-brunneolis, $21-30 \times 18-24$; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque non constrictis, punctatis, castaneo-brunneis, $30-48 \times 21-30$, episporio circiter 3-4 μ . crasso; pedicello hyalino, tenui, deciduo, usque 35 μ . longo.

Hab. in foliis vivis Stizolophi coronopifolii pr. Mersina Anatoliæ orient. (BORNMÜLLER).

84. *Puccinia subdecora* Syd. et Holw. Ann. Mycol. 1903, p. 17. -- 1013

Soris teleutosporiferis amphigenis, sine maculis, rotundatis v. irregularibus, mediocribus confluentibusque, pulverulentis, atro-brunneis; uredosporis immixtis globosis, subglobosis v. ovatis, minute aculeatis, brunneolis, $25-30 \times 19-28$; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non v. lenissime incrassatis, sæpe autem papilla dilutiore lata donatis, medio vix v. leniter constrictis, punctatis, castaneis, $34-50 \times 16-28$, episporio ca. 2-2,5 μ . crasso; pedicello hyalino, crasso subpersistenti, usque 30 μ . longo.

Hab. in foliis vivis Brickelliæ grandifloræ, Georgetown Colorado Amer. bor. (HOLWAY).

85. *Puccinia præmorsa* Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 332, 1014

Syd. Mon. Ured. vol. I, p. 31, tab. III, f. 32. — Soris teleutosporiferis hypophyllis, maculis rotundatis brunneis depressulis insidentibus, singulis in quaque macula, mediocribus, plerumque et pluribus minoribus omnino coalitis formatis, pulvinatis, atro-brunneis; teleutosporis oblongo-clavatis, apice truncatis, conico-attenuatis v. irregularibus, incrassatis, usque 8 μ ., medio leniter constrictis, basi attenuatis, levibus brunneis, 40-70 μ . long., loculo superiore 16-30 μ . lato, inferiore semper angustiore; pedicello brevi, firmo, brunneolo.

Hab. in foliis vivis Brickelliæ veronicæfoliæ, Oaxaca Mexico.

86. **Puccinia Picosiæ** Syd. Mon. Ured. vol. I, p. 131. — Soris te- 1015
leutosporiferis amphigenis, maculis nullis vel obsoletis brunneis
insidentibus, in greges rotundatos ad nervos sæpe elongatos 5-10
mm. longos dense aggregatis, pulvinatis, obscure brunneis; teleu-
tosporis clavatis v. oblongo-clavatis, apice rotundatis vel conico-
angustatis, incrassatis, usque 9 μ ., medio constrictis, basi angu-
statis, levibus, flavidis, 35-46 \times 15-21; pedicello hyalino, crasso,
persistenti, usque 38 μ . longo.

Hab. in foliis vivis Picosiæ longifoliæ, in Brasilia.

87. **Puccinia Lugoæ** P. Magn. in Ber. Deutsch. Bot. Ges. 1901, p. 293, 1016
Syd. Mon. Ured. vol. I, p. 118. — Soris teleutosporiferis hypo-
phyllis, maculis orbicularibus vel suborbicularibus rufo-brunneis,
usque 1 cm. diam. insidentibus, in greges rotundatos annulatim
laxeque dispositis, minutis, rotundatis, compactiusculis, atris; ure-
dosporis immixtis, globosis, subglobosis v. ellipsoideis, aculeatis,
flavo-brunneis, 27-40 \times 18-26; teleutosporis ellipsoideis v. oblon-
go-ellipsoideis, utrinque rotundatis, apice leniter incrassatis, 4-6 μ .,
medio non v. vix constrictis, punctulatis 33-42 \times 17-27; pedicello
hyalino, persistenti crasso, ad insertionem subinde leniter incre-
sato, usque 120 μ . longo.

Hab. in foliis Lugoæ revolutæ, pr. Tagauana, Teneriffa
in ins. Canariis (BORN-MÜLLER).

88. **Puccinia Leuzeæ** Syd. Mon. Ured. vol. I, p. 118. — Soris ure- 1017
dosporiferis hypophyllis, sine maculis, sparsis, non confluentibus,
minutis, pulverulentis, cinnamomeis; uredosporis globosis v. sub-
globosis, subtiliter echinulatis, flavo-brunneis, 21-25 μ . diam.; so-
ris teleutosporiferis conformibus, brunneis; teleutosporis ellipsoi-
deis v. ovatis, utrinque rotundatis, apice non incrassatis, medio
plerumque non constrictis, subtilissime verruculosus, brunneis, 22-
34 \times 18-24, episporio tenui; pedicello hyalino, brevissimo.

Hab. in foliis Leuzeæ carthamoidis, in Sibiria occid.

89. **Puccinia Krigiæ** Syd. Mon. Ured. vol. I, p. 104. — Soris uredo- 1018
sporiferis amphigenis, maculis minutis pallidis insidentibus, spar-
sis, minutis, rotundatis, pulverulentis, dilute brunneis; uredosporis
globosis v. subglobosis, rarius ellipsoideis, subtiliter echinulatis,
dilute flavo-brunneis, 21-27 μ . diam.; soris teleutosporiferis con-
formibus, obscure brunneis; teleutosporis ellipsoideis, utrinque ro-
tundatis, apice non incrassatis, medio non v. vix constrictis, pun-
ctatis v. subtilissime verruculosus, castaneo-brunneis 32-40 \times 19-
23, episporio tenui; pedicello hyalino tenui, brevi, deciduo.

Hab. in foliis caulibusque vivis Krigiæ amplexicaulis pr. Asheville, North Carolina Americæ bor. (B. L. ROBINSON).

90. **Puccinia Jostephanes** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 334. 1019

Sacc. Syll. XVI, p. 1119 (nomen), Syd. Mon. Ured. vol. I, p. 101, t. VI, p. 86. — Soris teleutosporiferis plerumque epiphyllis, rarius hypophyllis, maculis minutis purpureis sæpe insidentibus, sparsis, minutis, punctiformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice et sæpe sub septo papillula dilutiore instructis, medio non v. vix constrictis, verrucosis, castaneo-brunneis, 35-50 \times 24-35; episporio ca. 3 μ . crasso; pedicello hyalino e latere inserto, persistenti, usque 80 μ . longo.

Hab. in foliis vivis Jostephanes heterophyllæ, Cuernavaca Mexico (HOLVAY).

91. **Puccinia Homoianthi** Syd. Mon. Ured. vol. I, p. 99, t. VI, f. 85. 1020

— Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, dilute brunneis, 22-28 μ . diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, 30-40 \times 22-27, episporio tenui; pedicello brevi, hyalino.

Hab. in foliis vivis Homoianthi variabilis et Hom. viscosi in Chile.

92. **Puccinia Helianthellæ** Arthur Bull. Torr. Bot. Cl. 1904, p. 4. — 1021

Soris uredosporiferis amphigenis, sparsis rotundatis, immersis, pulverulentis, pallide brunneis; uredosporis globosis, 25-32 μ . latis, episporio pallide-brunneo, 3 μ . cr., minute subechinulato, poris 2 æquatorialibus vel oppositis; soris teleutosporiferis amphigenis, sparsis, rotundatis, immersis, pulverulentis, pallide-brunneis; teleutosporis ellipsoideis v. obovato-oblongis, 30-40 \times 20-26, utrinque obtusis vel rotundatis, ad septum non vel vix constrictis; episporio levi pallide brunneo, 2-2,5 μ . cr., apice incrassatulo; pedicello hyalino, exili, sporæ æquilongo, fugaci.

Hab. in foliis Helianthellæ Nevadensis, Nevada County Californiæ (A. A. HELLER).

93. **Puccinia Guardioliæ** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 334. 1022

Sacc. Syll. XVI, pag. 1119 (nomen) — Syd. Mon. Ured. vol. I, pag. 90, t. V, fig. 79. — Soris uredosporiferis plerumque hypophyllis, maculis irregularibus, purpurascentibus insidentibus, sparsis, minutis, obscure brunneis, pulverulentis; uredosporis globosis,

subglobosis vel ovatis, echinulatis, brunneis, $24-32 \times 20-25$, poris germinationis binis instructis; soris teleutosporiferis conformibus, compactiusculis, atro-brunneis; teleutosporis oblongo-clavatis vel clavatis, apice rotundatis vel rarius truncatis, incrassatis, $4-8 \mu$, medio constrictis, basi plerumque attenuatis, rarius rotundatis, levibus pallide brunneis, apice subhyalinis, $45-60 \times 18-25$; pedicello hyalino, crassiusculo, persistenti, usque 60μ longo.

Hab. in foliis vivis *Guardiolæ mexicanæ*, Cuernavaca, Mexico (HOLWAY).

94. *Puccinia Gonospermi* P. Magn. in Ber. Deutsch. Bot. Ges. 1901, 1023 p. 293, Sacc. Syll. XVI, pag. 1120 (nomen) — Syd. Mon. Ured. vol. I, p. 89. — Soris teleutosporiferis hypophyllis, maculis nullis v. vix distinctis insidentibus, sparsis, minutis, rotundatis, compactiusculis, atris; uredosporis immixtis, subglobosis v. ellipsoideis, subtiliter echinulatis, flavo-brunneis, $27-35 \times 19-25$; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice leniter incrassatis $4-6 \mu$, medio non v. vix constrictis, punctulatis, dilute brunneis, $32-42 \times 18-25$; pedicello hyalino, persistenti, crassiusculo, usque 100μ longo.

Hab. in foliis vivis *Gonospermi fruticosi* pr. Laguna, Teneriffa ins. Canar. (BORNUELLER).

95. *Puccinia Franseriæ* Syd. in Ann. Mycol. vol. I, 1903, pag. 326. 1624 — Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, rotundatis, punctiformibus, pulverulentis, obscure brunneis; uredosporis globosis v. subglobosis, echinulatis, brunneis, $25-32 \mu$ diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque late rotundatis, apice valde incrassatis, usque 10μ , medio plerumque leniter constrictis, levibus, brunneis, $38-50 \times 26-32$; pedicello crasso, hyalino, persistenti, usque 110μ longo.

Hab. in foliis vivis *Franseriæ ambrosioidis*, Tucson Mts. in Arizona Americæ bor. (GRIFFITHS).

96. *Puccinia Barrosteæ* Syd. Mon. Ured. vol. I, p. 28, t. II, fig. 28. 1025 — Soris uredosporiferis hypophyllis, maculis irregularibus fuscis, insidentibus, sparsis, minutis vel mediocribus, pulverulentis, cinnamomeis; uredosporis subglobosis, ovatis v. ellipsoideis, echinulatis, flavo-brunneis, $27-35 \times 19-27$; soris teleutosporiferis conformibus etiam cauliculis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice papilla subhyalina auctis, medio constrictis, le-

vibus, castaneo-brunneis, 40-65 \times 27-35; pedicello hyalino, persistenti, crasso, usque 110 μ . longo.

Hab. in foliis caulibusque vivis Barroetæ sabuligeræ, Aguas Calientes, Mexico (HOLWAY).

97. *Puccinia Calimeridis* Syd. Mon. Ured. vol. I, p. 32, t. III, f. 34. 1026

— Soris teleutosporiferis amphigenis, maculis nullis vel vix distinctis, sparsis, mediocribus, ca. 1-1,5 mm. rotundatis v. irregularibus, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis, raro acutiusculis, valde incrassatis, 8-13 μ , medio constrictis, basi rotundatis vel in pedicellum attenuatis, levibus, pallide brunneolis, loculo superiore paullo obscuriore, plerumque 36-50 \times 18-27, rarius usque 60 μ . long.; pedicello hyalino, crasso, persistente, usque 70 μ . long.; mesosporis paucis obovatis.

Hab. in foliis Calimeridis altaicæ, Minussinsk Sibiriae (MARTIANOFF).

98. *Puccinia clarioneicola* Syd. Mon. Ured. vol. I, p. 61. — Soris 1027

uredosporiferis amphigenis, sine maculis, sparsis, numquam confluentibus, minutis, pulverulentis, cinnamomeis; uredosporis globosis vel subglobosis, echinulatis, brunneis, 24-30 μ . diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. oblongis utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, 35-44 \times 23-27, episporio tenui; pedicello brevi hyalino.

Hab. in foliis vivis Clarionearum variarum in Chile et Fuegia.

99. *Puccinia crassicutis* Syd. Mon. Ured. vol. I, pag. 125, t. VII, 1028

f. 105. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, rotundatis, ca. 1 mm. diam., primo tomento folii tectis dein nudis, pulverulentis, atris; uredosporis immixtis oblongis v. ellipsoideis, aculeatis, flavis, 32-40 \times 16-20, apice incrassatis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice papilliformi-incrassatis, usque 10 μ . et subhyalinis, medio vix v. leniter constrictis, verrucosis, obscure brunneis, 52-60 \times 27-38, episporio usque 8 μ . crasso; pedicello hyalino, crasso, persistenti, flexuoso, usque 80 μ . longo.

Hab. in foliis vivis Mutisiæ Clematis, S. Cruz Boliviae.

100. *Puccinia Desmanthodii* Diet. et Holw. Bot. Gaz. XXXI, 1901, 1029

p. 334, Sacc. Syll. XVI, pag. 1119 (nomen) — Syd. Mon. Ured. vol. I, p. 73, t. IV, f. 58. — Soris teleutosporiferis hypophyllis, maculis magnis irregulariter limitatis, violaceis v. flavis, usque 1

cm. diam. insidentibus, minutis sed in greges magnos dense confertis, compactis, atris, paraphysibus atro-brunneis coalitis circumscriptis; teleutosporis oblongo-lanceolatis vel fusiformibus, apice attenuatis vel truncatis, incrassatis, usque 9 μ ., medio non vel leniter constrictis, basi attenuatis, levibus, dilute brunneis, 40-60 \times 10-16; pedicello brunneolo, firmo, usque 40 μ . longo.

Hab. in foliis *Desmanthodii* ovati, Oaxaca, Mexico (HOLWAY).

101. **Puccinia Electræ** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 333, 1030

Syll. XVI, p. 1119 (nomen) — Syd. Mon. Ured. vol. I, p. 76, tab. IV, f. 62. — Soris uredosporiferis epiphyllis, maculis varie coloratis insidentibus, rarius hypophyllis, sparsis, minutis, pulverulentis, obscure brunneis, 26-35 \times 20-25; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, verrucosis, obscure castaneo-brunneis, 35-48 \times 24-32, episporio crasso; pedicello hyalino, sursum brunneolo, crasso, persistenti, usque 80 μ . longo, interdum laterali.

Hab. in foliis vivis *Electræ* Galeottii, Oaxaca, Mexico (HOLWAY).

102. **Puccinia Hypochæridis** Oud. in Nederl. Kruidk. Archief II, 1031

ser. I, pag. 175 (1873): cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. — Syd. Mon. Ured. vol. I, p. 100. — Soris uredosporiferis amphigenis v. sæpe caulicolis, plerumque maculis minutis insidentibus, sparsis, pulverulentis, cinnamomeis, primariis mediocribus, secundariis minutis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, pallide brunneis, 22-28 μ . diam.; soris teleutosporiferis amphigenis, sæpe caulicolis, sparsis, minutis, punctiformibus, in caule majoribus, pulverulentis, atris; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, rarius attenuatis, subtiliter verruculosus, brunneis, 30-46 \times 18-24, episporio tenui; pedicello brevi, hyalino.

Hab. in foliis caulibusque vivis *Hypochæridis* glabræ helveticæ, maculatæ, radicatæ, unifloræ, in Germania, Italia, Austria, Hungaria, Helvetia, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Lusitania, Sibiria, America bor. et Chile.

103. **Puccinia hemisphærica** (Peck) Ell. et Ev. in North Am. Fung. 1032

n. 3144. — Syd. Mon. Ured. vol. I, pag. 109, t. VI, f. 93: cfr. Sacc. Syll. VII, p. 805, sub *Æcidio hemisphærico* Peck. — Py-

cnidiis amphigenis, minutis, brunneolis; æcidiis plerumque hypophyllis vel cauliculis, interdum etiam epiphyllis, maculis nullis, per totam foliorum superficiem æque sparsis vel præcipue nervum medium sequentibus, sæpe etiam cauliculis, hemisphæricis, diu clausis dein poro centrali apertis, flavis, pariete proprio vix evoluto; æcidiosporis globosis vel subglobosis, verruculosus, pallide aurantiacis 20-27 μ . diam.; soris uredosporiferis amphigenis, plerumque hypophyllis, maculis minutis, flavis v. viridibus insidentibus, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis v. ellipsoideis echinulatis, brunneis, 20-28 \approx 18-25; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel oblongis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, subtiliter verruculosus, brunneis, 27-42 \approx 16-25; pedicello hyalino, brevi.

Hab. in foliis caulibusque vivis Lactuæ (Mulgedii) pulchellæ, Ludovicianæ in America bor.

104. **Puccinia Lactucarum** Syd. Mon. Ured. vol. I, p. 108. — *Æci-* 1033
diis plerumque hypophyllis vel cauliculis, maculis irregularibus, flavo-brunneis insidentibus, paucis plerumque irregulariter et laxè aggregatis, primo hemisphæricis, dein applanatis, flavis; æcidiosporis globosis vel subglobosis, subtiliter verrucosis, pallide aurantiacis, 18-27 μ . diam.; soris uredosporiferis plerumque hypophyllis, maculis irregularibus indeterminatis pallidis insidentibus, sparsis vel paucis aggregatis, minutis, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo-brunneis, 18-27 μ . diam.; soris teleutosporiferis plerumque hypophyllis, sæpe autem cauliculis, maculis rotundatis v. irregularibus flavidis insidentibus, in foliis sparsis v. in greges minutos aggregatis, rotundatis, in caule rotundatis vel sæpe elongatis et hinc inde confluentibus, pulverulentis, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, verrucosis, castaneo-brunneis, 30-43 \approx 22-30; pedicello hyalino, brevissimo.

Hab. in foliis caulibusque vivis Lactuæ perennis, altissimæ (?), quercinæ (?), sagittatæ (?), in Germania, Austria, Helvetia, Gallia, Rossia.

105. **Puccinia lactucina** Syd. Mon. Ured. vol. I, pag. 111. — Soris 1034
uredosporiferis amphigenis, plerumque hypophyllis, sine maculis, sparsis non confluentibus, minutis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo-

brunneis vel brunneis, 18-27 μ . diam. vel 24-28 \times 18-22; soris teleutosporiferis conformibus, obscure castaneis; teleutosporis regularibus, ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, punctatis, brunneis, 34-39 \times 21-24, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis vivis Lactucæ scarioloidis, in prov. Kerman Persiæ austr. (BORNMUELLER).

106. **Puccinia Leontodontis** Jacky in Compositen-Puccin. p. 75 (1899) 1035

— Syd. Mon. Ured. vol. I, p. 114. — Soris uredosporiferis amphigenis, sparsis non confluentibus, minutis, punctiformibus, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, pallide brunneis, 25-37 μ . diam. vel 27-35 \times 24-27; soris teleutosporiferis conformibus, atris v. atro-brunneis; teleutosporis variabilibus plerumque ellipsoideis, ovato-ellipsoideis vel oblongis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, subtiliter verruculosi, castaneo-brunneis, 30-42 \times 21-27, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis vivis Leontodontis autumnalis, glabrati, hastilis, hispidi, incani, nigricantis, pyrenaici, squamosi, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Suecia, Serbia, Rossia, Fennia.

107. **Puccinia Mulgedii** Syd. Mon. Ured. vol. I, p. 123. — *Æcidiiis* 1036

hypophyllis, maculis minutis flavidis indeterminatis insidentibus, solitariis v. paucis tantum aggregatis, minutis, planis, flavis; æcidiosporis globosis, subglobosis vel ovatis, subtiliter verruculosi, flavescentibus, 19-24 μ . diam.; soris uredosporiferis hypophyllis, maculis nullis vel indeterminatis, sparsis, minutissimis, pulverulentis, cinnamomeis; uredosporis globosis vel subglobosis, subtilissime echinulatis, flavis, 20-27 μ . diam.; soris teleutosporiferis hypophyllis, sparsis, minutissimis, epidermide diutius tectis dein ea cinctis, obscure brunneis, pulverulentis; teleutosporis ovoideis vel oblongis, apice rotundatis, non incrassatis, medio non constrictis, basi rotundatis subtilissime verruculosi, brunneis, 27-38 \times 19-24, episporio tenui; pedicello hyalino, tenui, brevi, deciduo.

Hab. in foliis vivis Mulgedii alpini, aurei, macrophylli, in Germania, Austria, Gallia, Helvetia, Suecia, Norvegia Serbia.

108. **Puccinia Crepidis-leontodontoidis** R. Maire in Bull. Soc. bot. de 1037

France, année 1904, tab. 13, fig. 1. — Spermogoniis plerumque

epiphyllis, lageniformibus, penicillo ostiolarum valde evoluto; æcidiiis plerumque hypophyllis, in maculis flavescentibus orbicularibus seu marginalibus semiorbicularibus, laxiuscule congregatis, cupulato-oxplanatis; pseudoperidiis albidis, margine fere integro nec revoluto; æcidiosporis subglobosis vel irregulariter polyhedricis, subtiliter verruculosis, hyalinis, guttulis oleosis aurantiacis, faretis, 13-18 \approx 13-14; soris uredosporiferis amphigenis, minutis, punctiformibus, maculæ flavidæ 2-3 mm. insidentibus, pulverulentis, cinnamomeo-brunneis; uredosporis ovoideis v. subglobosis, 16-23 \approx 14-22 episporio dilute brunneo, aculeolato, duobus, rarius tribus, poris germinationis instructo; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ovoideis vel ovoideo-ellipsoideis, 26-34 \approx 18-26, utrinque rotundatis, apice haud incrassatis nec ad septum constrictis, episporio brunneo, subtiliter punctulato; poro germinationis cellulæ superioris, plerumque apicali, cellulæ inferioris a septo plus minusve remoto; pedicello hyalino, valde deciduo, sæpe laterali, teleutosporam æquante vel ea brevior.

Hab. in foliis *Crepidis leontodontoidis*, Ajaccio Corsicæ et Avellino Ital. merid.

109. **Puccinia Picridis-strigosæ** Syd. Mon. Ured. vol. I, pag. 131, 1038 tab. VII, fig. 112. — Soris teleutosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, sparsis, interdum confluentibus, orbicularibus, mediocribus, 1-2 mm. diam., pulverulentis, atris; uredosporis immixtis, globosis vel subglobosis, echinulatis, flavo-brunneis, 24-32 μ . diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio parum constrictis, punctatis, obscure castaneo-brunneis, 32-46 \approx 27-32; pedicello hyalino, persistenti, circiter 16 μ . longo.

Hab. in foliis vivis *Picridis strigosæ* pr. Kerman Persiæ australis (BORNMUELLER).

110. **Puccinia altaica** Syd. Mon. Ured. vol. I, pag. 137, tab. VIII, 1039 fig. 117. — Soris teleutosporiferis foliiculis vel cauliculis, mediocribus, sparsis, hinc inde confluentibus et tunc usque 3 mm. longis, oblongis vel elongatis, epidermide plumbea nitida sæpe tectis vel semivelatis, compactis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis vel sæpius acutiusculis, valde incrassatis, usque 13 μ ., medio vix leniter constrictis, deorsum attenuatis, levibus, brunneis, 43-54 \approx 16-25; pedicello hyalino vel hyalino-brunneo, persistenti, crasso, usque 115 μ . longo.

Hab. in foliis caulibusque *Prenanthis diversifoliæ*

(*Crepidis baicalensis*) in regione altaica Asiæ centralis (LEDEBOUR).

111. *Puccinia Prenanthis* (Pers.) Lindr. Mykol. Mittheil., pag. 6, in 1049
Act. Soc. pr. Fauna et Flora fennica 1901, n. 9. — Syd. Mon.
Ured. vol. I, pag. 106: cfr. Sacc. Syll. VII, p. 606, n. 2157 p. p.
— *Æcidii* hypophyllis, raro paucis etiam epiphyllis v. petiolicolis.
maculis flavis vel purpureis usque 1 cm. diam. insidentibus, in
greges rotundatos vel irregulares 6 mm. latos ad nervos sæpe
elongatos dispositis, primo hemisphæricis dein applanatis, flavis
vel albidis, interdum flavo-purpureis; *æcidiosporis* globosis, sub-
globosis vel ellipsoideis, subtiliter verruculosus, pallide aurantia-
cis, 13-24 μ . diam.; *soris* uredosporiferis hypophyllis, maculis ir-
regularibus pallidis indeterminatis insidentibus, sparsis, minutis,
punctiformibus, pulverulentis, pallide brunneis; uredosporis glo-
bosis vel subglobosis, echinulatis, flavo-brunneis, 16-24 μ . diam.;
soris teleutosporiferis conformibus, epidermide fissa cinctis, atro-
brunneis; teleutosporis ellipsoideis, apice rotundatis, non incrassa-
tis, medio non constrictis, basi plerumque rotundatis, subtilissime
verruculosus, brunneis, 26-36 μ 16-24; pedicello hyalino, brevis-
simo.

Hab. in foliis vivis *Lactucæ* (*Prenanthis*) muralis, in
Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hol-
landia, Britannia, Dania, Suecia, Fennia, Rossia.

112. *Puccinia Prenanthis-purpureæ* (DC.) Lindr. Mykol. Mittheil. p. 7, 1041
in Act. Soc. pro Fauna et Fl. fennica 1901, n. 9. — Syd. Mon.
Ured. vol. I, pag. 135: cfr. Sacc. Syll. VII, p. 606, n. 2157 p. p.
— *Æcidii* hypophyllis, maculis orbicularibus usque 5 mm. diam.,
flavis vel flavo-purpureis insidentibus, in greges rotundatos vel
irregulares, usque 6 mm. latos ad nervos subinde elongatos dispo-
sitis, primo hemisphæricis dein late apertis, flavis vel albidis, in-
terdum flavo-purpureis; *æcidiosporis* globosis, subglobosis v. elli-
psoideis, subtiliter verrucosus, pallide aurantiacis, 15-24 μ 12-20;
soris uredosporiferis hypophyllis, maculis minutis flavis insiden-
tibus, sparsis, minutissimis, punctiformibus, pulverulentis, dilute
rufo-brunneolis; uredosporis globosis vel subglobosis, subtiliter
echinulatis, flavidis, 17-25 μ . diam.; *soris* teleutosporiferis confor-
mibus brunneis; teleutosporis ellipsoideis vel ovatis, apice rotun-
datis, subtilissime verruculosus, brunneis, 24-37 μ 16-24, episporio
tenui; pedicello hyalino brevi.

Hab. in foliis vivis *Prenanthis* albæ, purpureæ, te-

nuifoliæ, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia.

113. *Puccinia Prenanthis-racemosæ* Syd. Mon. Ured. vol. I, p. 137. 1042

— Soris uredosporiferis amphigenis, maculis minutis obsoletis vel nullis insidentibus, sparsis, minutissimis, punctiformibus, epidermide fissa cinctis, pulverulentis, dilute brunneis; uredosporis globosis, subglobosis v. ellipsoideis, subtiliter echinulatis, dilute brunneis, 22-30 μ . diam.; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis v. ovatis, apice rotundatis, non incrassatis, medio non vel raro parum constrictis, basi plerumque rotundatis, subtilissime verrucosis, brunneis, 30-45 \times 21-28, episorio tenui; pedicello hyalino, brevi.

Hab. in foliis *Prenanthis racemosæ*, Saskatchewan, America bor. (E. BOURGEAU).

114. *Puccinia Rhagadioli* (Pass.) Syd. Mon. Ured. vol. I, pag. 139, 1043

Æcidium Rhagadioli Pass.: cfr. Sacc. Syll. VII, p. 805. — Pycnidiis epiphyllis; æcidii amphigenis, sine maculis, per totam superficiem foliarum æque sparsis, cupulatis, margine albido, laciniato, reflexo; æcidiosporis globosis v. subglobosis, subtiliter verrucosis, pallide aurantiacis, 15-26 μ . diam.; soris uredosporiferis amphigenis, maculis nullis v. minutis flavidis insidentibus, sparsis minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, subtiliter aculeatis, flavidis 20-28 μ . diam.; soris teleutosporiferis conformibus, sæpe cauliculis et tunc diu tectis, atrobunneis; teleutosporis late ellipsoideis v. interdum subglobosis, utrinque rotundatis, apice non incrassatis, medio non constrictis, verrucosis, obscure castaneis, 30-43 \times 24-32; pedicello hyalino, brevi.

Hab. in foliis vivis *Rhagadioli stellati*, in Italia, Gallia.

115. *Puccinia sejuncta* Syd. in Ann. Mycol. 1903, vol. I, p. 326. — 1044

Pycnidiis epiphyllis, flavidis; æcidii amphigenis, plerumque hypophyllis, vulgo per totam foliorum superficiem æque distributis, minutis, cupulatis, flavidis, margine leniter recurvato, subtiliter inciso; æcidiosporis subglobosis, angulato-globosis v. angulato verrucosis, hyalino-flavescentibus, 14-20 \times 11-16; soris uredosporiferis amphigenis, maculis nullis v. vix distinctis flavescentibusque insidentibus, sparsis v. subinde etiam partem folii majorem æque obtegentibus, minutis, rotundatis v. irregularibus, epidermide fissa cinctis, pulverulentis, cinnamomeo-brunneis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis v. brunneis, 24-30 μ . diam. vel 24-32 \times 22-27; soris teleutosporiferis conformibus, atro-

brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel raro lenissime constrictis, subtiliter punctatis, brunneis 32-40 \times 20-25, episporio tenui; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis Hieracii albiflori, Falcon Valley, Washington (SUKSDORF), Hieracii spec., Lisson Cal. (HOLWAY).

116. *Puccinia variabilis* Grev. Scot. Crypt. Fl. 1823, tab. 75 et Fl. Edimb. p. 431 (1824), Syd. Ured. vol. I, p. 163. — *Æcidii* amphigenis, maculis minutis indeterminatis flavis v. purpureis hinc inde confluentibus insidentibus, solitariis v. perpaucis tantum aggregatis, cupulatis, humilibus, margine laciniato albido; *æcidiosporis* subglobosis v. ovatis, intus aurantiacis, verruculosus, 20-25 \times 15-20; soris uredosporiferis amphigenis, maculis minutissimis, flavis v. purpureis plerumque insidentibus, sparsis, minutis, punctiformibus, mox nudis, brunneis; uredosporis globosis, subglobosis vel ovatis echinulatis, brunneis, 22-32 \times 19-26; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosus, brunneis, 28-40 \times 18-25, episporio tenui; pedicello hyalino, sporam subæquante, sed deciduo. 1045

Hab. in foliis vivis Taraxaci officinalis, palustris, in Britannia, Italia et Suecia.

117. *Puccinia Willemetiae* Bubák in Cest. bot. Zeits. 1902, pag. 95, Syd. Mon. Ured. vol. I, p. 183 — Soris uredosporiferis amphigenis, præcipue hypophyllis, maculis violaceo-purpureis minutis insidentibus, sparsis, minutissimis, punctiformibus, mox nudis, pulverulentis, cinnamomeo-brunneis; uredosporis globosis, subglobosis v. ovatis, echinulatis, dilute brunneis 19-26 \times 17-23; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, verruculosus, brunneis, 26-35 \times 19-24, episporio tenui; pedicello hyalino, tenui, sporam æquante, sed deciduo. 1046

Hab. in foliis vivis Willemetiae hieracioidis in Bohemia (BUBÁK).

118. *Puccinia sonchinea* Syd. in Revista Agronomica de Portugal, 1903, n. 10, p. 331. — Soris uredosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, irregulariter sparsis, minutis vel rarius confluyendo mediocribus, epidermide lacerata cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ovatis, 1047

subtiliter echinulatis, flavo-brunneis, 24-27 μ . diam. vel 24-32 \times 22-27; poris germinationis duobus præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, subtiliter verruculosis, brunneis, 30-45 \times 22-27, episporio tenui; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis v. languidis *Sonchi* spec., prope Beja Lusitanie. — An hue spectat *Uredo sonchina* Thuem., quæ viget in foliis *Sonchi arvensis* ad Orenburg Rossie? Uredosporæ duarum specierum non differunt, sed teleutosporæ in specie Thuemiana adhuc desiderantur.

119. *Puccinia tagananensis* Magnus Ber. d. deutsch. bot. Ges. XIX, 1048 1901, p. 297, pl. XIV, fig. 1-3. — Ab affini *P. Sonchi* specificè differret uredosoris tantum uredosporas nec teleutosporas commixtas præbentibus (sed, teste cl. Sydow, differentia nimis tenuis).

Hab. in foliis *Sonchi* radicati, in Algeria (?) et in foliis *Sonchi tenerrimi*, Tunis Africæ bor. (JUEL).

120. *Puccinia Podospermi* DC. Fl. franç. II, p. 595 (1805) et Syn. 1049 p. 46 (1806), Syd. Mon. Ured. vol. I, p. 133. — Pycnidiis epiphyllis; æcidiiis hypophyllis, sine maculis, per totam superficiem foliorum æque sparsis, cupulatis, margine albido, laciniato, revoluti; æcidiosporis globosis, subglobosis v. ellipsoideis, dense verrucosis, pallide aurantiacis, 20-30 μ . diam.; soris uredosporiferis amphigenis, maculis nullis v. pallidis indeterminatis insidentibus, sparsis, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis vel ellipsoideis, aculeatis, brunneolis, 24-32 \times 22-26; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis globoso-ellipsoideis vel ellipsoideis, utrinque rotundatis apice non incrassatis, medio non constrictis, verruculosis, castaneis, 27-40 \times 22-30; pedicello hyalino, brevi.

Hab. in foliis vivis *Podospermi calcitrapifolii*, Jacquini, laciniati, in Germania, Austria, Helvetia, Gallia, Italia, Rossia.

121. *Puccinia Scorzonerae* (Schum.) Jacky, in Composit. Puccin. p. 54 1030 (1899), Syd. Mon. Ured. vol. I, pag. 141, *Æcidium minutellum* Speg.: cfr. Sacc. Syll. VII, p. 774. — Pycnidiis epiphyllis; æcidiiis hypophyllis, sine maculis, per totam superficiem foliorum æque sparsis, cupulatis, margine albido, laciniato, revoluti; æcidiosporis globosis, subglobosis v. ellipsoideis, pallide aurantiacis, dense verrucosis, 20-30 \times 18-24; soris uredosporiferis amphigenis, maculis

nullis v. pallidis indeterminatis insidentibus, sparsis, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis vel ellipsoideis aculeatis, brunneolis, $20-32 \times 20-26$; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel ovatis, apice rotundatis, non incrassatis, medio non v. vix lenissime constrictis, basi rotundatis v. attenuatis, subtiliter verruculosi, brunnei, $27-38 \times 17-26$; pedicello hyalino, brevi.

Hab. in foliis vivis *Scorzoneræ austriacæ*, *hispanicæ*, *humilis*, *purpureæ*, in Germania, Austria, Hungaria, Italia, Gallia, Dania, Suecia, Rossia.

122. *Puccinia scorzonericola* Tranzsch. Ann. Mycol. 1904, p. 161. — 1051

Uredosoris primariis amphigenis, subcircinatis, pycnidia circumambientibus, epidermide rupta cinctis, brunneis, in maculis flavicantibus sitis; soris secundariis minutis, amphigenis sparsis, brunneis, senio ob teleutosporas atro-brunneis; uredosporis globosis v. ellipsoideis, $28-31 \times 23-30$, membrana brunnea spinulosa, binis poris germinationis prædita; teleutosporis ellipsoideis v. ovoideis, apice rotundatis, basi rotundatis vel breve attenuatis, septo non constrictis, $33-38 \times 21-24$, membrana castanea, minute verrucosa, æquicrassa; poris germinationis in quaque cellula subcentralibus; pedicello tenui.

Hab. in foliis *Scorzoneræ humilis* in Belgio, Silesia, Italia, Fennia, Rossia. — *Puccinia Plantaginis* West. (et Bérang. in Herb. meol!) huc spectat, non tamen in *Plantagine* sed in *Scorzonera humili* viget. Cfr. Tranzs. l. c.

123. *Puccinia Stephanomeriæ* Syd. Mon. Ured. vol. I, p. 157, t. IX, 1052

f. 135. — Soris teleutosporiferis amphigenis v. cauliculis, sine maculis sparsis vel paucis aggregatis, ca. 1 mm. diam., rotundatis, pulverulentis, atro-brunneis; uredosporis immixtis, globosis v. subglobosis, echinulatis, brunneis, $30-35 \mu$. diam.; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, rarius leniter attenuatis, subtilissime verruculosi, brunnei, $35-52 \times 24-31$, episporio tenui; pedicello hyalino, deciduo.

Hab. in foliis caulibusque *Stephanomeriæ cichoriacæ*, San Gabriel Mts. Californiæ (Mc CLATCHIE).

124. *Puccinia Barkhausiæ-rhœadifoliæ* Bubák (Ester. bot. Zeitschr. 1053

1902, n. 2, p. 42, Syd. Mon. Ured. vol. I, p. 65. — Pycnidii inter æcidia sparsis, minutis, flavis, mox evanescentibus; æcidiis plerumque per totam foliorum superficiem inferiorem æque distri-

butis, rarius etiam paucis in epiphylo evolutis, minutis, humilibus, albido-flavis, margine leniter recurvato, subtiliter inciso; æcidiosporis angulato-globosis, ovatis v. ellipsoideis, subtiliter verruculosus, flavescentibus, 18-30 \approx 14-20; soris uredosporiferis amphigenis, maculis nullis vix distinctis insidentibus, sparsis rotundatis, mox nudis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, brunneis, 17-25 \approx 16-22; soris teleutosporiferis amphigenis, maculis plerumque nullis insidentibus, sparsis, minutis, punctiformibus, rotundatis, atro-brunneis v. atris, pulverulentis; teleutosporis ovatis, ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio non v. leniter constrictis, basi rotundatis, punctatis, brunneis 26-42 \approx 20-30, episporio tenui; pedicello hyalino, tenui sporam æquante sed valde deciduo.

Hab. in foliis vivis *Crepidis* (*Barkhausiæ*) *rhœadifoliæ* ad Pragam Bohemiæ (BUBÁK).

125. *Puccinia canariensis* Syd. Mon. Ured. vol. I, p. 166. — Soris 1054
uredosporiferis amphigenis, maculis nullis v. obsoletis insidentibus, sparsis, rotundatis, epidermide fissa cinctis, pulverulentis, obscure brunneis; uredosporis globosis vel subglobosis, raro ellipsoideis, aculeatis, brunneis, 26-32 μ . diam.; soris teleutosporiferis conformibus, minutis v. mediocribus, ca. 0,5-1 mm. diam., atris v. atro-brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, subtiliter verruculosus, obscure brunneis, 35-42 \approx 26-32, episporio ca. 2 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Thriniciæ* nudicaulis, pr. Funchal, ins. Madeira (BORNMÜLLER).

126. *Puccinia Cichorii* (D. C.) Bell. in Kickx. Fl. Fland. II, p. 65, 1055
Syd. Mon. Ured. vol. I, 49. — Soris uredosporiferis amphigenis v. cauliculis, sparsis, interdum confluentibus, minutis, pulverulentis, epidermide lacerata cinctis, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo-brunneis, 21-27 μ . diam.; soris teleutosporiferis amphigenis v. cauliculis, conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, levibus, brunneis, 27-38 \approx 19-25, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis caulibusque *Cichorii* *Intybi*, *C. Endiviæ* (?) in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Britannia, Suecia.

127. *Puccinia chondrillina* Bubák et Syd. in *Æst. bot. Zeitschr.* 1901, 1056 n. 1, p. 7 et 1902, n. 2, p. 94, Syd. *Mon. Ured.* vol. I, p. 44: cfr. Sacc. *Syll.* VII, p. 606, *P. Prenanthis* (Pers.) Fuck. p. p. — Soris uredosporiferis amphigenis, v. sæpe cauliculis, maculis minutis v. subnullis insidentibus, in folio sparsis, minutis, non confluentibus, in caule sparsis v. sæpe aggregatis majoribus interdum confluentibus et epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ovatis, subtiliter echinulatis, brunneis, 20-27 μ . diam. vel 24-30 \times 16-24; soris teleutosporiferis plerumque cauliculis, rarius paucis etiam foliiculis, in caule sæpe confluentibus, epidermide tectis vel ea fissa cinctis, obscurioribus, minus pulverulentis; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis subtilissime verruculosus, castaneis, 32-42 \times 19-27, episporio tenui, pedicello hyalino, tenui usque 40 μ . longo, facile deciduo.
- Hab.* in foliis, petiolis caulibusque vivis *Chondrillæ* junceæ in Germania, Bohemia, Italia, Gallia, Lusitania.
128. *Puccinia Cymboseridis* Syd. *Mon. Ured.* vol. I, p. 73, t. IV, f. 57 1057 — Soris uredosporiferis amphigenis, sine maculis, sparsis v. aggregatis, minutis, rotundatis v. irregularibus, epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, dilute brunneis, 21-24 μ . diam. vel 24-27 \times 18-24; soris teleutosporiferis conformibus, obscure castaneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, punctatis, brunneis, 31-39 \times 20-24, episporio tenui; pedicello brevi, hyalino.
- Hab.* in foliis vivis *Cymboseridis* palæstinæ in monte Carmel Palæstinæ (BORNMÜLLER).
129. *Puccinia aurata* Syd. in *Ann. Mycol.* 1904, pag. 349. — Soris 1058 teleutosporiferis, hypophyllis, maculis depressis, obscuris, minutis circ. 1-2 mm. diam. insidentibus, plerumque omnino in acervulum 1-2 mm. latum confluentibus et maculam totam explentibus, compactis, ochraceo-flavis; teleutosporis oblongo-clavatis, apice rotundatis non vel vix incrassatis, medio non vel parum constrictis, deorsum attenuatis, levibus, aureo-flavis, 45-60 \times 14-21; pedicello hyalino usque 40 μ . longo.
- Hab.* in foliis vivis *Compositæ* cujusdam indeterminatæ, *Derema* Africæ orient. trop. (A. KARASEK).
130. *Puccinia nervincola* Lagh. in Syd. *Mon. Ured.* vol. I, p. 190, 1059

tab. XI, fig. 172. — Soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, sparsis v. sæpius nervos sequentibus et tunc paucis aggregatis, plerumque rotundatis, ca. 1 mm. diam., compactiusculis, alutaceo-brunneolis; teleutosporis cylindricis vel cylindrico-clavatis, apice rotundatis, truncatis v. conico-attenuatis, valde incrassatis, usque 19 μ ., medio leniter constrictis, basi rotundatis v. attenuatis, levibus, pallide flavis, 135-162 \times 14-22; pedicello subhyalino v. concolori, persistenti, curvulo, longissimo, usque 190 μ . longo, crasso, sæpe sporæ latitudine.

Hab. in foliis vivis Compositæ ejusdam, Panatanga Æquatoris (LAGERHEIM).

131. *Puccinia leucericicola* Syd. Mon. Ured. vol. I, p. 118, tab. VI, 1060

f. 97. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, ca. 350-500 μ . diam., punctiformibus, compactiusculis, atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter verruculosus, flavis, 24-29 μ . diam.; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, incrassatis, usque 8 μ ., medio leniter constrictis, basi rotundatis vel attenuatis, levibus, dilute brunneis, apice obscurioribus, 32-50 \times 17-28; pedicello hyalino, crasso, persistenti, usque 60 μ . longo; mesosporis interdum paucis immixtis.

Hab. in foliis vivis Leuceriæ oligocephalæ pr. Conception in Chile (NEGER).

132. *Puccinia Calyceræ-Cavanillesii* (Speg.) Sacc. et D. Sacc. *P. Caly-* 1061

cercæ Speg. Myc. arg. ser. II, 1902, p. 61, nec Sydow. — Acervulis cauli-foliicolis amphigenis, subrotundis, erumpenti-superficialibus, nudis, cinnamomeis, compactiusculis 0,3-1 mm. diam.; uredosporis ellipticis v. obovatis rufis, levibus, grosse 1-guttulatis, 24-30 \times 24-26; teleutosporis ellipticis vel obovatis apice obtusissimis, tunica ubique subtenui vestitis, ferrugineis, levibus, 28-40 \times 26-30, loculis grosse 1-guttulatis; pedicello hyalino fragilissimo 25-30 \times 5-7, paraphysibus præcipue marginalibus, linearibus 50-60 \times 5-6 donatis.

Hab. ad caules et folia *Calyceræ Cavanillesii* var. sinuatæ, Puente del Juca in Argentina.

133. *Puccinia Calyceræ* Syd. Mon. Ured. vol. I, p. 192, tab. XII, 1062

f. 174. — Soris uredosporiferis amphigenis, sine maculis, sparsis v. aggregatis, minutis, rotundatis v. ellipticis, epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, brunneolis, 22-27 μ . diam.; soris te-

lentosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtilissime verruculosus, castaneis, $35-43 \times 24-30$, episporio ca. 3μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis petiolisque vivis Calyceræ sessilifloræ in Argentina (K. REICHE) et Chile (PHILIPPI).

134. *Puccinia melanosora* Speg. — Syll. VII, p. 710. — var **tigrens** 1063

M. Pennington Ured. Paran. p. 4 (Anales Soc. Cien. Arg. 1902).

— Maculis nullis vel indeterminatis; soris hypophyllis pulverulentis; uredosporis globosis, tunicatis, non echinulatis, $23-25 \mu$. diam.; teleutosporis cylindraceis, leviter constrictis, fulvis, crasse tunicatis, $30-35 \times 20-25$; pedicello brevissimo hyalino, $4 \approx 2$.

Hab. ad folia viva Acicarphæ tribuloidis in pratis pr. San Fernando et Tigre Brasiliæ. — Dimensionibus conspicue minoribus teleutosporarum et pedicellorum a typo recedere videtur.

135. *Puccinia Nastanthi* Speg. Mycet. argent. ser. II, 1902, p. 64. 1064

— Maculis nullis v. folio toto pallescenti-flavescente; acervulis amphigenis, majusculis, erumpentibus, subpulverulentis, atro-fulgineis; soris $0,5-1$ mm. diam., applanatulis, sæpe confluentibus, epidermide disrupta cinctis; teleutosporis obovatis v. ellipticis obtusis, ubique subtenuiter tunicatis, intense fulvo-ferrugineis, levibus, ad septum non v. vix constrictis, $40-50 \times 22$, loculis subæquilongis, rarius apice subcuneatis, pedicello hyalino, $10-25 \times 5-8$ suffultis.

Hab. ad folia viva Nastanthi agglomerati, in summis andibus Las Cuevas, in Argentina. — Species *P. Gamocarphæ* (Klotz.) Henn., nec non *P. Boopidis* Neg. affinis, sed ut videtur satis distincta.

136. *Puccinia Gilgiana* P. Henn. in Hedw. 1901, p. 95, Syd. Mon. 1065

Ured. vol. I, p. 194, tab. XII, f. 179. — *Æcidii*s petiolicolis v. calycicolis, partibus incrassatis leniterque deformatis insidentibus, hemisphærico-cupulatis, flavidis; *æcidiosporis* angulato-globosis, subtiliter verruculosus, flavidis, $15-20 \mu$. diam.; soris uredosporiferis cauliculis, gregariis, oblongis, epidermide fissa brunnea cinctis v. subtectis, subpulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, verruculosus, flavo-brunneis, $14-21 \times 12-18$; soris teleutosporiferis conformibus, atris; teleutosporis clavatis v. oblongis, apice rotundatis v. truncatis, leniter incrassatis, usque 5μ ., medio leniter constrictis, basi rotundatis v. attenuatis, levibus, brunneis, $32-46 \times 17-24$; pedicello brunneo, crassiusculo,

persistenti, 30-50 μ . longo; mesosporis oblongis v. oblongo-clavatis, 26-35 \times 16-22, apice magis incrassatis.

Hab. in petiolis, caulibus calycibusque vivis *Leschenaultiæ* linarioidis pr. Perth Australiæ occid. (PRITZEL).

137. *Puccinia Dampieræ* Syd. Mon. Ured. vol. I, p. 193, tab. XII, 1066 f. 178. — Soris teleutosporiferis in alis caulium evolutis sine maculis, sparsis vel aggregatis, rotundatis vel oblongis, ca. 1 mm. diam., epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis vel acutiusculis, valde incrassatis, 8-11 μ ., medio constrictis, deorsum attenuatis, rarius rotundatis, levibus, brunneis, 48-66 \times 16-26; pedicello flavido, persistenti, usque 80 μ . longo; mesosporis immixtis clavatis, 40-55 \times 14-22.

Hab. in alis caulium *Dampieræ* alatæ in Australia (L. PREISS).

138. *Puccinia Ipomœæ-panduratæ* (Schw.) Syd. Mon. Ured. vol. I, 1067 pag. 323, tab. XXII, fig. 312, *Æcid. Ipomœæ-panduratæ* Schw. Syn. Fg. Carol. 1822, p. 69: cfr. Sacc. Syll. VII, p. 619, n. 2186, p. 671, n. 2322, p. 716, n. 2503. — *Æcidiis* hypophyllis, maculis flavidis v. flavo-brunneis orbicularibus v. irregularibus insidentibus, rarius epiphyllis, in greges rotundatos vel irregulares 1-3 mm. latos confertis, rarius solitariis, primo tectis, globulosis, subglobosis v. ellipsoideis, minutissime asperulis, flavidis, 20-24 μ . diam. vel usque 26 μ . longis, 14-16 μ . latis; soris teleutosporiferis amphigenis, *æcidiis* sæpe contraposis, suborbicularibus vel irregularibus, mediocribus vel majusculis, confluentibus et tunc usque 4 mm. latis, pulverulentis, epidermide fissa cinctis, atris; teleutosporis oblongis apice in papillam obtusam pellucidam productis, medio vix vel leniter constrictis, basi rotundatis, grosse verrucosis, castaneo-brunneis, 42-62 \times 22-32; pedicello hyalino, apice infuscato, persistenti, crasso usque 170 μ . longo.

Hab. in foliis vivis *Ipomœæ* acuminatæ, commutatæ, lacunosæ, megapotiæ, panduratæ, purpureæ, trichocarpæ, trilobæ in America bor. et austr.

139. *Puccinia commutata* Syd. Mon. Ured. vol. I, p. 201: cfr. Sacc. 1068 Syll. vol. VII, p. 669, *P. Valerianæ* Carest. p. p. — *Æcidiis* hypophyllis, petiolicolis v. cauliculis, in foliis greges orbiculares v. irregulares efformantibus, in petiolis caulibusque secus series plus minusve longas dispositis, maculis pallidis insidentibus, dense confertis, cupulatis, margine albo lacerato revoluto; *æcidiosporis* polygonis, subtiliter verrucosis, aurantiacis, 14-19 μ . diam.; soris te-

leutosporiferis hypophyllis, petiolicolis v. cauliculis, in foliis sparsis v. aggregatis, subinde confluentibus, minutis, in petiolis caulibusque plerumque dense confertis confluentibusque et pustulas plus minusve longas efformantibus pulverulentis, fusco-brunneis; teleutosporis difformibus, oblongis, subfusoides v. subclavatis, apice modice incrassatis, rotundatis v. subconoideo-attenuatis, medio non v. parum constrictis, basi attenuatis, raro rotundatis, levibus, castaneo-brunneis, $40-60 \approx 20-35$; pedicello hyalino, deciduo, longiusculo.

Hab. in foliis, petiolis caulibusque vivis Valerianæ officinalis, tripteris, sambucifoliæ in Germania, Austria, Italia, Helvetia, Belgio, Russia.

140. *Puccinia Anthospermi* Syd. Mon. Ured. vol. I, p. 206. — Soris 1069 teleutosporiferis hypophyllis, maculis minutis ca. 2 mm. diam, griseo-brunneis insidentibus, minutis, rotundatis, paucis aggregatis v. in unum omnino confluentibus, compactiusculis, cinnamomeo-brunneis; teleutosporis oblongis, apice rotundatis et non v. vix incrassatis vel conico-attenuatis et tunc usque 9 μ . incrassatis, medio valde constrictis, basi plerumque attenuatis, rarius rotundatis, levibus, flavis, $35-46 \approx 16-21$, episporio tenui; pedicello hyalino, usque 30 μ . longo.

Hab. in foliis vivis Anthospermi hirti in Capite Bonæ Spei Africae austr. (SIEBER).

141. *Puccinia Bouwardiæ* Griffiths in Bull. of the Torr. Bot. Club. 1070 1902, p. 297, cum icone. — Soris teleutosporiferis epiphyllis, interdum sæpe hypophyllis, circularibus, sparsis, prominentibus, nigris, erumpentibus dein evanidis; teleutosporis subellipticis inferne rotundatis, superne luteo-umbonato-apiculatis, ad septum subconstrictis, $36-46 \approx 23-28$, episporio crasso, tuberculato, brunneo donatis; pedicello persistenti crassiusculo 80-100 μ . longo, superne incrassatulo.

Hab. in foliis Bouwardiæ triphyllæ, in montibus Santa Catalina, Arizona, Amer. bor. — Probabiliter stat. teleut. *Acidii Bouwardiæ* Diet.

142. *Puccinia Borreriæ* Syd. Mon. Ured. vol. I, pag. 209. — Soris 1071 teleutosporiferis hypophyllis, maculis indeterminatis brunneolis insidentibus, sparsis v. laxè aggregatis, minutis, rotundatis, compactis, atro-brunneis; teleutosporis ellipsoideis, ovato-ellipsoideis v. oblongo-ovatis, apice rotundatis, minoribus vix vel leniter incrassatis, majoribus plerumque magis incrassatis, usque 11 μ ., me-

dio non v. vix constrictis, basi rotundatis, levibus, brunneis, 24-41 \times 16-24, episporio subtenui, ca. 2 μ . crasso; pedicello apice brunneolo, tenui, persistenti, usque 100 μ . longo, vix oblique inserto.

Hab. in foliis vivis *Borreria angustifoliae* ad fluv. Longa Africae aust. (BAUM).

143. *Puccinia Houstoniae* Syd. in Hedw. 1901, p. 26, Mon. Ured. 1072 vol. I, p. 222, tab. XIII, f. 200. — Soris teleutosporiferis hypophyllis, maculis flavidis v. brunneolis determinatis v. indeterminatis insidentibus, minutis, sparsis v. plerumque dense aggregatis et subinde confluentibus, rotundatis, pulvinatis, primo flavidis, dein flavo-brunneis, tandem brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis, incrassatis 4-7 μ ., medio non vel vix constrictis, basi plerumque rotundatis, levibus, dilute brunneis, 32-45 \times 16-24, episporio tenui; pedicello hyalino, crasso, persistenti, usque 75 μ . longo.

Hab. in foliis vivis *Houstoniae angustifoliae*, Austin, Texas Americae bor. (LONG).

144. *Puccinia Operculariae* Syd. Mon. Ured. vol. I, p. 224, tab. XIV, 1073 f. 203. — Soris teleutosporiferis hypophyllis, maculis orbicularibus fusco-griseis usque 5 mm. diam., insidentibus, solitariis v. paucis in quaque macula aggregatis, minutis, rotundatis, compactis, rufo-brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, rarius truncatis v. leniter acutiusculis, incrassatis, usque 8 μ ., medio constrictis, basi rotundatis v. attenuatis, levibus, flavis 35-54 \times 14-20; pedicello hyalino, firmo, usque 100 μ . longo.

Hab. in foliis vivis *Operculariae asperae*, Genoa River Australiae (F. v. MÜLLER).

145. *Puccinia Otiophorae* Syd. Mon. Ured. vol. I, p. 224, tab. XIV, 1074 f. 204. — Soris teleutosporiferis hypophyllis, maculis minutis 1-2 mm. diam. rotundatis, depressulis brunneis insidentibus, sparsis, non confluentibus, rotundatis $\frac{1}{2}$ - $\frac{3}{4}$ mm. diam., compactis, cinnamomeis; teleutosporis clavulatis, apice rotundatis, non incrassatis, medio constrictis, basi attenuatis, levibus, hyalino-flavescentibus 35-43 \times 10-16, episporio tenuissimo; pedicello hyalino, persistenti, sporam æquante.

Hab. in foliis vivis *Otiophorae subcapitatae*, Andrango-loaka ins. Madagascar cent. (J. M. HILDEBRANDT).

146. *Puccinia Pentanisiae* Cooke — Syll. VII, p. 645. — var. *Pentagynae* P. Henn. in Bot. Ergebn. der Kunene-Sambesi Expedit. 1075

pag. 3 (1902), Syd. Mon. Ured. Mon. Ured. vol. I, p. 225. — *Teleutosporis longe pedicellatis*, pedicello usque 90 μ . longo. Cetera typi.

Hab. in foliis vivis *Pentanisiæ pentagynæ*, ad flum. Kubango *Africæ austr.* (BAUM).

147. *Puccinia rubilivora* P. Magn. in Ber. Deuts. Bot. Ges. 1901, 1076 p. 297, tab. XIV, fig. 4-16, Syd. Mon. Ured. vol. I, p. 227. — *Æcidii* hypophyllis, maculis rufo-brunneis insidentibus, in greges minutos paucis laxè dispositis, cupulatis, margine inciso albido; *æcidiosporis* globoso-angulatis, verruculosi, flavidis, 22-29 \approx 16-25; *soris teleutosporiferis* epiphyllis, sine maculis, sparsis v. subinde binis trinis dispositis, ca. 1 mm. diam., pulverulentis, atris; *teleutosporis variabilibus*, plerumque ovato-oblongis v. oblongis, apice rotundatis, truncatis v. obtuse et oblique acuminatis, non v. vix incrassatis, medio non vel parum constrictis, basi rotundatis vel attenuatis, punctulatis, brunneis, 30-60 \approx 20-32; pedicello hyalino, persistenti, crasso, usque 70 μ . longo.

Hab. in foliis vivis *Rubiæ fruticosæ* pr. *Tafira*, *Gran Canaria* ins. *Canar.* (BORNMÜLLER).

148. *Puccinia rubicola* Syd. Mon. Ured. vol. I, p. 226, tab. XIV, 1077 f. 207. — *Soris uredosporiferis* epiphyllis, maculis indeterminatis flavo-brunneolis insidentibus, sparsis, minutis, epidermide fissa cinctis, subpulverulentis, cinnamomeis; *uredosporis* globosis vel ovatis, echinulatis, flavo-brunneis, 26-30 μ . diam. vel 30-36 \approx 22-25, episporio ca. 3 μ . crasso; *soris teleutosporiferis* conformibus, atro-brunneis; *teleutosporis* oblongis v. clavatis, apice rotundatis v. acutiusculis, valde incrassatis, usque 11 μ ., medio leniter constrictis, basi attenuatis, levibus, pallide flavo-brunneis, 35-54 \approx 12-19; pedicello hyalino, tenui, fragili, usque 60 μ . longo.

Hab. in foliis *Rubiæ discoloris* in *Abyssinia* (SCHIMPER).

149. *Puccinia Galii-elliptici* R. Maire in Bull. Soc. Bot. de France 1078 année 1904, pag. 215. — *Soris amphigenis*, præcipue hypophyllis, in maculis purpureis arecentibus insidentibus, minutis, rotundatis, pulvinatis, cinnamomeo-brunneis; *uredosporis* globosis v. ovoideis; episporio aculeato, brunneo, duobus, rarius tribus, poris prædito, 20-30 \approx 20-26; *teleutosporis* in *soris uredosporiferis* mox evolutis, clavatis vel clavato-oblongis, medio constrictis, loculo superiore apice rotundato vel retuso, 7-8 μ . incrassate poro germinationis subapicali prædito, brunneis, 37-60 \approx 20-28; pedicello hyalino spora sæpius brevior, circiter 40-50 \approx 6-9.

Hab. in foliis vivis Galii-elliptici, prope Sartena Corsicæ.

150. *Puccinia syriaca* Syd. Mon. Ured. vol. I, pag. 211, tab. XIII, 1079 f. 194 (Rov. 1902), *Pucc. ansata* Lindr. in Act. Soc. Faun. et Fl. fenn. 1902 Dec., pag. 17. — Soris hypophyllis v. cauliculis, sine maculis, sparsis, solitariis, rotundatis v. oblongis, ca. 1 mm. longis, epidermide cinerea diu tectis, pulverulentis, atro-brunneis; uredosporis subglobosis, tenuiter spinulosis, 18-23 × 16-22, poris 3-5; teleutosporis difformibus, ellipsoideis v. oblongis, apice rotundatis v. truncatis, leniter incrassatis, usque 5 μ . medio parum constrictis, basi plerumque rotundatis, levibus, brunneis, 30-40 × 20-30; pedicello tenui hyalino, brevi, subdeciduo.

Hab. in foliis caulibusque Crucianellæ syriacæ, macrostachyæ in Syria (HAUSSKNECHT), Crucianellæ græcæ, distichæ in Græcia et Phrygia (HELDREICH, BALANSA).

151. *Puccinia asperulina* (Juel) Lagh. apud Vestergr. Microm. rar. 1080 selecti n. 258 (1901), Syd. Mon. Ured. vol. I, p. 207; cfr. Sacc. Syll. XIV, p. 381, *Æcidium asperulinum* Juel. — *Æcidii* præcipue hypophyllis, sæpe per totam superficiem foliorum æque sparsis, folia infecta flavida reddentibus, cupulato-cylindraceis, margine profunde lacerato, albido, recurvato; æcidiosporis globoso-polygoniis, verruculosus, hyalino-flavescentibus, 15-20 μ . diam.; soris uredosporiferis hypophyllis, paucis, sparsis, minutissimis, dilute brunneis; uredosporis globosis, subglobosis v. ovato-ellipsoideis, subtilissime echinulatis, flavis, 22-28 × 18-24; soris teleutosporiferis hypophyllis, paucis, sparsis, minutissimis, pulverulentis, diutius epidermide tectis, brunneis; teleutosporis subcutaneis, oblongo-clavatis v. clavatis, apice rotundatis v. interdum truncatulis, non v. lenissime incrassatis, medio vix v. leniter constrictis, basi attenuatis, levibus, flavo-brunneolis, 40-50 × 15-26, episporio tenuissimo; pedicello flavido brevi.

Hab. in foliis vivis Asperulæ tinctoriæ in Suecia et Rossia.

152. *Puccinia dimorpha* Syd. Mon. Ured. vol. I, p. 227, tab. XIV, 1081 f. 208. — Soris teleutosporiferis hypophyllis v. rarius amphigenis, sparsis v. circinatim dispositis, 1-2 mm. diam., mox nudis, obscure castaneo-brunneis, in caule pulviniformibus oblongis v. elongatis crassioribus; teleutosporis clavatis, apice rotundatis vel raro acutiusculis, valde incrassatis, usque 13 μ . et obscurioribus, medio constrictis, basim versus in pedicellum attenuatis, levibus, brunneolis 45-75 μ . longis, loculo superiore subgloboso vel raro ellipsoideo

20-34 μ . lato, inferiore 19-24 μ . lato; pedicello hyalino, firmo, crasso, usque 68 μ . longo.

Hab. in foliis caulibusque vivis Rubiæ petiolaris pr. Boschberg Africae australis (MAC OWAN).

153. **Puccinia Blepharidis** P. Henn. Bot. Ergeb. der Kunene-Sambesi 1082
Exped. p. 2 (1902), Syd. Mon. Ured. vol. I, p. 231. — *Æcidii* plerumque hypophyllis, maculis indeterminatis flavidis v. fuscidulis insidentibus, sparsis v. sæpius paucis laxè orbiculariter dispositis, cupulatis, margine fimbriato; *æcidiosporis* angulato-globosis, punctatis, flavidis, 15-22 \times 12-19; *isoris* teleutosporiferis amphigenis, sæpius epiphyllis, interdum *æcidii* intermixtis, sparsis v. paucis irregulariter laxè aggregatis v. suborbiculariter dispositis, minutis, epidermide bullata diutius tectis, compactis, atro-brunneis; teleutosporis variabilibus, ovato-oblongis v. oblongo-clavatis, apice rotundatis v. rarius acutiusculis, plus minusve incrassatis 5-11 μ ., medio non v. leniter constrictis, basi rotundatis v. attenuatis, levibus, brunneis, 35-58 \times 18-28; pedicello brunneo persistenti, crassiusculo, sporam æquante; mesosporis subinde paucis immixtis.

Hab. in foliis vivis Blepharidis Buchneri pr. Manouge Africae austr. (BAUM).

154. **Puccinia Anisacanthi** Diet. et Holw. in Bot. Gaz. XXXI, p. 329, 1083
1901, Syd. Mon. Ured. vol. I, p. 230, tab. XIV, f. 211. — *Soris* uredosporiferis amphigenis, sparsis, minutis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, remote echinulatis, flavo-brunneis, 22-28 \times 16-24, *poris* germinationis binis instructis; *isoris* teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, sæpe apice papillato-incrassatis, medio vix vel leniter constrictis, verrucosis, obscure castaneo-brunneis, 36-48 \times 24-32, *episporio* ca. 2,5 μ . crasso, cellula inferiore interdum sub septo etiam papillula lata instructa; pedicello hyalino, crasso flexuoso, subinde laterali, usque 110 μ . long.

Hab. in foliis Anisacanthi (Wrightii?) pr. Acamboro, Mexico (HOLWAY).

155. **Puccinia Ruelliae-Bourgæi** Diet. et Holw. in Bot. Gaz. XXXI, 1084
p. 329, 1901, Syd. Mon. Ured. vol. I, p. 235, t. XV, f. 216. — *Æcidii* in greges irregulares secus venas dispositis; *æcidiosporis* globosis v. ellipsoideis, sæpe angulosis, verrucosis, apice valde incrassatis, flavescentibus, 25-38 \times 20-26; *isoris* uredosporiferis punctiformibus, pulverulentis, brunneis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis; 21-26 μ . diam.; *isoris* teleuto-

sporiferis conformibus, atro-brunneis, teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, verrucosis, atro-brunneis, 32-40 \approx 24-31; pedicello hyalino, flexuoso, persistenti, firmo, crasso, usque 95 μ . longo, sæpe oblique inserto.

Hab. in foliis vivis *Ruellia* *Bourgæi*, Chapala, Mexico (HOLWAY).

156. *Puccinia Longiana* Syd. in Hedw. 1901, p. 126 et Mon. Ured. 1085 vol. I, p. 234. — Soris uredosporiferis, amphigenis, sine maculis, sparsis, minutis punctiformibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, aculeatis, flavo-brunneis, 22-28 μ . diam.; soris teleutosporiferis conformibus, epidermide fissa cinctis, atris v. atro-brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, plerumque leniter incrassatis, usque 5 μ ., medio non v. lenissime constrictis, basi rotundatis, subtilissime verruculosis v. tantum punctatis, obscure castaneo-brunneis, 33-48 \approx 24-32; pedicello hyalino, crasso, sæpe oblique inserto, usque 40 μ . longo.

Hab. in foliis vivis *Ruellia* *tuberosæ* (?) Austin, Texas (LONG).

157. *Puccinia exitiosa* Syd. et Holw. in Syd. Mon. Ured. vol. I, 1086 p. 245. — Soris teleutosporiferis hypophyllis vel sæpe gemmas et calyces ex toto tegentibus, in folio (ut videtur) rotundatis v. ovatis, ca. 2-4 mm. longis, in gemmis calycibusque plerumque late extensis et confluentibus pulverulentis, cinnamomeo-brunneis; teleutosporis valde regularibus, ellipsoideis, utrinque rotundatis, apice non v. lenissime incrassatis, usque 3 μ ., medio non v. parum constrictis, verruculosis, brunneis, 28-33 \approx 16-21; pedicello hyalino, brevissimo.

Hab. in foliis, gemmis calycibusque *Tecomæ* *mollis*, Patzcuaro, Mexico (HOLWAY).

158. *Puccinia appendiculatoides* P. Henn. Fungi Amaz. I, p. 186, 1087 Hedw. 1904. — Maculis rotundatis vel effusis, brunneolis; uredosporis minutis, flavidulis; uredosporis subglobosis vel ellipsoideis, subcastaneis, verrucosis 30 \approx 20 μ .; teleutosporis hypophyllis aggregatis, pulverulentis, ferrugineis; teleutosporis late ellipsoideis vel subcuboideis, utrinque rotundatis vel applanatis, apice vix incrassatis, papilla hyalina subhemisphærica ca. 3 μ . ornatis, dense grosse verrucosis, medio 1-septatis constrictis, castaneis, 30-38 \approx 22-26 μ .; pedicello hyalino vel flavido, tereti, ca. 40-60 \approx 4-4 $\frac{1}{2}$ μ ., ad

basin appendiculis hyalinis versiformibus, repetito lobatis vel sub-palmatifidis.

Hab. in foliis Bignonianæ ejusdam, Rio Juruá, Miry Amer. merid. — Affinis *P. appendiculatæ* sed teleutosporis minoribus hyalino-apiculatis recedit.

159. *Puccinia Memoræ* P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1904) 1083

— Maculis flavidulis vel fuscidulis, parvis vel indeterminatis; soris hypophyllis sparsis vel subgregariis, minutis, hemisphæricis, diutius tectis, flavidulis; uredosporis subglobosis, brunneis, aculeatis, 18-24 μ .; teleutosporis subellipsoideis, articulis globosis, facile secedentibus, apice rotundatis haud incrassatis, brunneis, episporio castaneo levi, tenui; pedicello ca. 12×4 , hyalino.

Hab. in foliis *Memoræ* (*Bignoniaceæ*) spec., Perú, Rio Hualaga, Tarapoto, Amer. merid.

160. *Puccinia Gerardæ* Syd. Ann. Mycol. 1903, p. 18. — Soris teleu- 1089

tosporiferis follicolis v. cauliculis, minutis, in foliis aggregatis et ea plerumque incurva reddentibus, ut videtur, in caulibus, in greges irregulares v. elongatos usque 6 mm. longos dispositis, compactiusculis, atro-brunneis; teleutosporis ellipsoideis, ovatis v. oblongis, apice plerumque rotundatis, incrassatis, usque 8 μ ., medio constrictis, basi rotundatis v. attenuatis, levibus, brunneis, 28-42 \times 15-20; pedicello subhyalino, persistenti, crassiusculo, usque 80 μ . longo.

Hab. in foliis caulibusque *Gerardæ* tenuifoliæ, Mount Carmel, Illinois Americæ bor. (M. B. WAITE).

161. *Puccinia Adenostegia* Arthur in Bull. of the Torr. Bot. Club 1090

1902, pag. 231. — Soris teleutosporiferis caulinis, in circulum dispositis, erumpentibus, subnudis; teleutosporis oblongis, 15-22 \times 45-67, ad septum paullo constrictis, apice obtusis, acutis v. acuminatis, crasse tunicatis, basi parce constrictis, pedicello exili, interdum colorato, sporæ æquilongo vel breviori donatis.

Hab. in foliis *Adenostegia* pilosæ (= *Cordylanthus*) prope Stanford, Cal., Amer. bor.

162. *Puccinia Ederi* Blytt in Christiania Vidensk Selsk. Forhand. 1091

1896, n. 6, p. 54, Syd. Mon. Ured. vol. I, p. 250, tab. XVI, f. 237.

— Soris teleutosporiferis epiphyllis, sine maculis, sparsis, minutis v. mediocribus, ca. 1-1½ mm. diam., sed ægre conspicuis, epidermide diutius tectis, rotundatis, tandem liberis vel subliferis, pulverulentis, castaneis; teleutosporis oblongis v. subfusoides, apice rotundatis v. attenuatis, non incrassatis, medio leniter constrictis, basi rotundatis v. attenuatis, subtiliter verruculosi, flavo-brun-

neis, 30-38 \approx 11-15; pedicello hyalino, gracili, deciduo, usque 25 μ . longo.

Hab. in foliis vivis *Pedicularis* *Æderi* in Norvegia (BLYTT, C. Bock).

163. **Puccinia Veronicae** Schroet. Pilze Schles. 1889, p. 347; Syd. Mon. 1092

Ured. vol. I, p. 256. — Soris teleutosporiferis hypophyllis, maculis orbicularibus brunneis insidentibus, minutis, sparsis v. orbiculatim dispositis, rotundatis, initio flavo-brunneis, dein brunneis; teleutosporis fusoides, apice plerumque rotundatis, incrassatis, usque 5 μ ., medio non v. vix constrictis, basi attenuatis, levibus, flavescentibus v. dilutissime brunneolis, 28-36 \approx 10-12; pedicello hyalino, persistenti, teleutosporam æquante vel ea brevior.

Hab. in foliis vivis *Veronicae montanae* in Germania, Austria, Britannia, Belgio, Dania.

164. **Puccinia Cestri** Diet. et P. Henn. in Hedw. 1902, p. 295, Syd. 1093

Mon. Ured. vol. I, p. 262. — Soris teleutosporiferis hypophyllis, maculis fusciculis rotundatis insidentibus, sparsis, primo tectis, brunneolis, dein nudis, citrinis, rotundato-discoideis, majusculis, ca. 1-2.5 mm. diam., ceraceis; teleutosporis subfusoides v. fusideo-clavatis, apice subrotundatis, non v. vix incrassatis, medio non v. vix constrictis, basi attenuatis, levibus, hyalino-flavescentibus, 60-100 \approx 11-16, episporio tenuissimo; pedicello primo brevi, dein plus minusve elongato et usque 200 μ . longo, crasso, hyalino, fistuloso, persistenti.

Hab. in foliis vivis *Cestri spec.*, Serra da Cantareira, San Paulo Brasilæ et in Æquatoria.

165. **Puccinia turgida** Syd. Mon. Ured. vol. I, p. 266, tab. XVII, 1094

f. 250. — Soris uredosporiferis, amphigenis, sine maculis, sparsis, ca. $\frac{1}{2}$ - $\frac{3}{4}$ mm. diam., orbicularibus, punctiformibus, epidermide fissa cinctis, pulverulentis, brunneis; uredosporis ovatis v. ellipsoideis, aculeatis, flavis, 35-43 \approx 14-27; soris teleutosporiferis coniformibus, atro-brunneis, teleutosporis ellipsoideis, apice rotundatis, rarissime leniter acutiusculis, non incrassatis, medio vix constrictis, basi rotundatis, dense verrucosis, opacis, atro-brunneis, 40-55 \approx 28-37, episporio 4-5 μ . crasso; pedicello hyalino, crasso, cylindrico, medio subito usque ad basim valde inflato, hinc parte infera omnino globosa, toto 50-60 μ . longo interdum oblique inserto.

Hab. in foliis vivis *Lycii europæi*, Jericho Palæstinæ (BORN-MÜLLER).

166. **Puccinia imitans** Syd. Mon. Ured. vol. I, p. 273, tab. XVIII, 1005
f. 261. — Soris teleutosporiferis hypophyllis, per totam superficiem aque distributis v. in greges rotundatos v. irregulares confertis et tunc sæpe maculis flavis insidentibus, minutis, nudis, compactis, pulvinatis, atro-brunneis; teleutosporis variis ellipsoideis, oblongis v. oblongo-clavulatis, apice rotundatis v. acutiusculis, valde incrassatis, usque 11 μ ., medio plerumque leniter constrictis, basi rotundatis v. attenuatis, levibus, dilute flavo-brunneis, 30-48 \approx 15-24; pedicello hyalino, persistenti, crassiusculo, usque 100 μ . longo.

Hab. in foliis vivis Solani spec. prope Quito Æquatoricæ (LAGERHEIM).

167. **Puccinia huallagensis** P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1096
1904). — Maculis atroferrugineis rotundatis; soris hypophyllis, aggregato-compactis, cinnamomeis vel fuscis; teleutosporis clavatis, apice rotundatis, paulo usque ad 4 μ . incrassatis, medio 1-septatis, constrictis, 30-40 \approx 15-23, episporio subtenui, levi, brunneo; pedicello brevi vel elongato, hyalino-fuscidulo, 4-5 μ . crasso.

Hab. in foliis Solani spec., Perù, Cerro de Ponasa, Amer. merid. — Affinis *P. claviformi* sed soris compactis, sporis, proportionem angustioribus diversa.

168. **Puccinia Pittieriana** P. Henn. F. Costaric. und Par. p. 147 (Hedw. 1097
1904). — Maculis fusciculis sparsis, soris hypophyllis pulvinatis, aggregatis, ferrugineis; teleutosporis ellipsoideis, ovoideis vel subcuboideis, apice rotundatis vel applanatis, paulo, interdum usque ad 5 μ ., incrassatis, medio 1-septatis haud vel paulo constrictis, 20-30 \approx 16-22 μ ., episporio flavobrunneo, levi, pedicello usque ad 60 \approx 6 μ ., hyalino-flavido; mesosporis ovoideis vel subclavatis 20-25 \approx 13-18 μ . intermixtis.

Hab. in foliis Solani tuberosi, Vulkan Irazu, Costarica Amer. centr. (PITTIER). — *P. Negerianæ* affinis, sed sori aliter efformati, mesosporæ præsentibus etc.

169. **Puccinia Chamæsarachæ** Syd. Mon. Ured. vol. I, p. 263, t. XVII, 1098
f. 247. — Æcidiis hypophyllis, rarius paucis etiam epiphyllis, irregulariter sparsis vel sæpe totam paginam folii occupantibus, sed in greges haud dispositis, cupulatis, albidis, margine lacerato; æcidiosporis subglobosis v. angulatis, verruculosus, hyalino-flavescentibus, 18-22 μ . diam.; soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, sine maculis, plerumque totam superficiem foliorum occupantibus, minutis, valde pulverulentis, viola-

ceo-brunneis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio constrictis, levibus, brunneis, 27-40 \approx 16-22; pedicello hyalino, tenui, fragili, usque 55 μ . longo.

Hab. in foliis petiolisque vivis *Chamaesarachæ nanæ* in Nevada et California Americæ bor.

170. **Puccinia ballotæflora** Long in Bull. Torr. Bot. Cl. 1902, p. 116, 1099 f. 7, Syd. Mon. Ured. vol. I, p. 294. — Soris teleutosporiferis plerumque hypophyllis, sparsis, minutis, usque 1 mm. diam., pulverulentis, atris; uredosporis immixtis globosis, subglobosis vel ovatis, echinulatis, dilute brunneis, 20-28 μ . diam.; teleutosporis ovato-ellipsoideis v. ellipsoideis, apice papilliformiter incrassatis, medio leniter constrictis, verrucosis, castaneo-brunneis, 37-50 \approx 24-30; pedicello hyalino, apice fulvo, usque 90 μ . longo, sæpe oblique inserto.

Hab. in foliis vivis *Salviæ ballotæfloræ*, San Marcos, Texas Americæ bor. (LONG). — Affinis *P. farinaceæ*. Septum sæpe obliquum; mesosporæ rariores.

171. **Puccinia bithynica** P. Magn. in Syd. Mon. Ured. vol. I, p. 295, 1100 tab. XIX, f. 281. — Soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, maculis indeterminatis flavis insidentibus, subinde petiolicolis, minutis, rotundatis, aliis sparsis v. solitariis, aliis in greges rotundatos v. irregulares 2-5 mm. latos aggregatis et subinde subconfluentibus, compactis, atris; teleutosporis oblongis, forma et præcipue magnitudine variabilibus, plerumque utrinque rotundatis, apice valde incrassatis, usque 14 μ ., medio constrictis, levibus, brunneis, apice obscurioribus, 38-62 \approx 16-28, rarius usque 32 μ . latis; pedicello hyalino, crasso persistenti, usque 130 μ . longo.

Hab. in foliis vivis *Salviæ pomiferæ* pr. Kissamos ins. Cretæ (REVERCHON), *S. bithynicæ* pr. Brussa Bithyniæ (BORN-MÜLLER), *S. grandifloræ* in Rossia.

172. **Puccinia farinacea** Long in Bull. Torr. Bot. Cl. 1902, p. 115, 1101 f. 6, Syd. Mon. Ured. vol. I, p. 293, tab. XX, f. 277. — Soris uredosporiferis amphigenis, maculis nullis v. vix manifestis insidentibus, sparsis, minutis, ca. $\frac{1}{2}$ - $\frac{3}{4}$ mm. diam., rotundatis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis echinulatis, dilute brunneis, 19-27 μ . diam.; soris teleutosporiferis conformibus, ca. $\frac{3}{4}$ -1 mm. diam., atris; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice leniter incras-

satis, usque 3 μ ., medio non constrictis, subtiliter, præcipue apicem versus, verruculosis, obscure brunneis, 24-35 \times 22-30; pedicello hyalino, firmo crassiusculo, usque 70 μ . long.

Hab. in foliis vivis *Salviæ farinaceæ*, Austin, Texas Americæ bor. (LONG).

173. *Puccinia Gillesii* Speg. Myc. Arg. Ser. I, in Ann. Soc. Cient. 1103
Arg. 1899, p. 265. — Maculis nullis; acervulis amphigenis, sparsis, rarius pauci-gregariis sed non confluentibus, difformibus, 0,5-1,5 mm. diam., erumpenti-prominulis, aterrimis, subpulverulentis; teleutosporis ellipticis vel subovatis, 40-45 \times 30, medio 1-septatis non v. vix constrictis, episporio crassiusculo apice leniter umbonato et sublevi, ceterum dense majusculæque papilloso vestitis, subopace atro fuligineis, pedicello hyalino crassiusculo, 50-75 \times 6-8 subpersistente fultis.

Hab. in foliis vivis *Salviæ Gillesii* pr. Córdoba Argentina.

174. *Puccinia griseola* Lagh. in Syd. Mon. Ured. vol. I, pag. 296, 1103
tab. XX, fig. 283. — Soris teleutosporiferis hypophyllis, maculis nullis vel vix distinctis insidentibus, sparsis, solitariis, minutis, rotundatis, compactis, pallidis, griseo-flavidis; teleutosporis oblongo-clavatis vel clavatis, apice plerumque rotundatis, incrassatis, 2-6 μ ., medio constrictis, basim versus attenuatis, levibus, hyalinis v. subhyalinis 40-68 \times 12-19; pedicello hyalino brevi.

Hab. in foliis vivis *Salviæ spec.*, San Jorge Æquatorie (LAGERHEIM).

175. *Puccinia mitrata* Syd. Mon. Ured. vol. I, p. 294, tab. XIX, 1104
f. 279. — Soris teleutosporiferis hypophyllis, maculis nullis v. obsoletis insidentibus, sparsis v. interdum subgregariis, minutis, $\frac{1}{2}$ -1 mm. diam., pulverulentis, atro-brunneis; uredosporis immixtis, plerumque globosis, dense valideque aculeatis, brunneis 18-22 μ . diam.; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice papilla lata humili dilutiore instructis, medio non v. vix constrictis, verrucosis, castaneo-brunneis, 30-42 \times 26-32, episporio ca. 5 μ . crasso; pedicello hyalino, persistenti, crasso, deorsum tenuiore, usque 90 μ . longo, flexuoso.

Hab. in foliis vivis *Salviæ mexicanæ*, Patzcuaro, Mexico (SELER).

176. *Puccinia obesa* Syd. Mon. Ured. vol. I, pag. 289, tab. XIX, 1103
fig. 272. — Æcidiis hypophyllis v. petiolicolis, in folio maculis minutis brunneolis insidentibus solitariis v. paucis tantum aggregatis, in petiolo sæpe deformato et incrassato curvatoque compluribus

laxe aggregatis, cylindræis, aliis margine revoluto profunde inciso; æcidiosporis globosis v. subglobosis, verrucosis, subhyalinis 24-32 μ . diam., episporio crasso ca. 3 μ .; soris uredosporiferis epiphyllis, singulis interdum hypophyllis, sine maculis, sparsis, rotundatis $\frac{1}{2}$ -1 $\frac{1}{2}$ mm. diam., ferrugineis; uredosporis globosis vel subglobosis, remote aculeatis, flavis, 28-36 μ . diam., episporio cr. 6-7 μ .; soris teleutosporiferis, rufo-ferrugineis; teleutosporis subglobosis v. late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, castaneo-brunneis, verrucis planis instructis, 40-46 \approx 31-36, episporio crasso, ca. 9 μ .; pedicello hyalino, persistenti, crassiusculo, usque 80 μ . longo.

Hab. in foliis petiolisque vivis *Salviæ Gillesii* in prov. Córdoba Argentina (*HIERONYMUS*).

177. *Puccinia ræstelliformis* Lagh. in Syd. Mon. Ured. vol. I, p. 292, 1106
tab. XIX, fig. 275. — Æcidiis hypophyllis, maculis indeterminatis brunneolis insidentibus, solitariis, longe cylindræis, usque 2,5 mm. long., albis, margine lacerato; æcidiosporis globosis, subglobosis v. ellipsoideis, grosse verrucosis, subhyalinis, 27-38 μ . diam.; soris teleutosporiferis hypophyllis, eisdem maculis insidentibus, sparsis, vix confluentibus, minutis, rotundatis, compactiusculis, subtremelloideis, cinnamomeis; teleutosporis longe cylindræis, apice rotundatis, incrassatis, 2,5-6 μ ., medio leniter constrictis, basi plerumque truncato-rotundatis, levibus, flavescentibus, 100-162 \approx 16-25; pedicello hyalino, persistenti, sporæ crassitudine, longissimo, usque 200 μ . longo.

Hab. in foliis vivis *Salviæ spec.*, Guayrascaja Æquatoris (*LAGERHEIM*).

178. *Puccinia Salviæ* Ung. Infl. des Bodens etc. 1836, p. 218, Syd. 1107
Mon. Ured. vol. I, p. 296, *Pucc. Salviæ-glutinosa* Ces. in Sacc. Myc. ven. n. 130: cfr. Sacc. Syll. VII, p. 688, n. 2374, p. p. — Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus indeterminatis, centro brunneis sæpe flavo-cinctis insidentibus, sparsis, solitariis, minutis, punctiformibus, compactis, griseo-brunneis; teleutosporis ellipsoideis v. oblongis, apice papilla subverruciformi obtusa v. leniter acutiuscula subinde laterali auctis, medio non v. vix constrictis, basi rotundatis, levibus, brunneis 30-52 \approx 15-24; pedicello hyalino, persistenti, usque 75 μ . longo.

Hab. in foliis vivis *Salviæ glutinosæ* in Germania, Austria, Helvetia, Italia, Romania, Rossia.

179. *Puccinia Rübsaameni* P. Magn. in Berichte Deut. Bot. Gesell. 1198

1904, p. 344, t. XX (absque diagnosi). — Matricem microphyllam et cladomaniacam (*scopazzi*) reddens; teleutosoris tantum notis, absque paraphysibus (colore et magnitudine non indicatis); teleutosporis (ex icone) ellipsoideis medio constrictis, utrinque rotundatis, $30,7 \approx 19,7$, tunica æqualiter modice incrassata levi; poris germinativis in quaque cellula singulis, lateralibus; pedicello longo deciduo (subnullo ex icone).

Hab. in Origano vulgari (in caulibus tantum?) Remagen Germaniæ (Ew. H. RÜSSAAMEN).

180. **Puccinia caulicola** Schneid. in 48 Jahr. der Schl. Ges. für 1109
valterl. Cultur, 1870, p. 120, Syd. Mon. Ured. vol. I, p. 301, *Pucc.*
Schneideri Schroet. (1879) — Sacc. Syll. VII, p. 677.

Hab. in foliis, petiolis caulibusque Thymi angustifolii, Chamædryos, pannonici, Serpylli, Origani vulgaris (?) in Germania, Austria, Hungaria, Helvetia, Gallia, Britannia, Suecia, Dania.

181. **Puccinia leonotidicola** P. Henn. in Bot. Ergebn. der Kunene 1110
Sambesi Exped. 1902, p. 3, Syd. Mon. Ured. vol. I, p. 280. — Soris uredosporiferis amphigenis, maculis indistinctis flavo-fuscis insidentibus, sparsis v. subaggregatis, minutis, ca. 1 mm. diam., pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, brunneis 21–25 μ . diam.; soris teleutosporiferis amphigenis, maculis indistinctis flavo-fuscis insidentibus, sparsis, minutis, ca. $\frac{1}{2}$ mm. diam., subpulverulentis, brunneis; teleutosporis ellipsoideis, apice rotundatis, late papilliformiter incrassatis, usque 5 μ ., medio non vel vix constrictis, basi rotundatis, levibus, flavo-brunneolis, $25-32 \approx 18-23$; pedicello hyalino, crassiusculo, sporam æquante.

Hab. in foliis vivis Leonotidis nepetifoliæ ad fluv. Longa Africæ austr. (BAUM).

182. **Puccinia Micromeriæ** Dudley et Thomps. in Journ. of Mycol. 1111
1904, p. 54. — Æcidiiis hypophyllis in soros dense sparsos v. caulogenos 6–10 \approx 3–4,5 mm. dispositis, basi hemisphaericis, superne longe cylindraceis, margine irregulariter denticulatis, non revolutis; æcidiosporis anguloso-ovoideis, oblongis v. globosis, hyalinis, minute denseque verrucosis, $25-32,5 \approx 16-21$; soris uredosporiferis sparsis vel congestis hypophyllis, in maculis pallide luteis insidentibus, parvulis, rotundatis, pallide luteis; uredosporis elliptico-oblongis vel ovoideis, minute echinulatis, $25-30 \approx 18,7-21$, granulosis; soris teleutosporiferis caulogenis, raro in pag. inf. insidentibus, $3-3,7 \approx$

1-1,9 mm. diam. intense brunneis, suberumpentibus; teleutosporis rufo-brunneis, oblongis ad septum paullo constrictis, superne verrucosis, utrinque rotundatis, papilla apicali subinconspicua donatis, 29-34 \times 24-27,5; pedicello hyalino, fragili 37,5-44 μ . longo.

Hab. in foliis caulibusque Micromeris Chamissonis, Santa Cruz et Big River, Mendocino County Californiæ.

183. **Puccinia Vossii** Koern. in Rabh. Fg. eur. n. 1294, Syd. Mon. 1112

Ured. vol. I, p. 298: cfr. Sacc. Syll. VII, p. 677, n. 2339, p.p.

— Soris teleutosporiferis hypophyllis, interdum paucis etiam epiphyllis, numerosis, aggregatis, confluentibus, plorumque magnam superficiem foliorum occupantibus, sæpe ad nervos constipatis, minutis, rotundatis, epidermide lacerata cinctis, pulverulentis, obscure brunneis; teleutosporis ellipsoideis v. ovoideo-ellipsoideis, utrinque rotundatis, apice leniter incrassatis, medio constrictis, levibus, flavo-brunneis, 20-36 \times 14-24; pedicello brevi, hyalino, deciduo.

Hab. in foliis caulibusque vivis Stachydis rectæ in Germania, Austria, Hungaria, Helvetia, Rossia.

184. **Puccinia hyptidicola** Syd. Mon. Ured. vol. I, p. 280, t. XVIII, 1113

f. 267. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, atris; uredosporis immixtis globosis v. subglobosis, echinulatis, flavis, 20-25 μ . diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio parum constrictis, subtiliter verruculosi, brunneis, 26-32 \times 19-25; pedicello hyalino, tenui, brevi.

Hab. in foliis Hyptidis fasciculatæ, Concepcion Uruguay (G. P. LORENTZ).

185. **Puccinia Hyssopi** Schw. N. Amer. Fg. p. 296 (1834), Syd. Mon. 1114

Ured. vol. I, p. 281: cfr. Sacc. Syll. VII, p. 688, n. 2374, p. p.

— Soris teleutosporiferis hypophyllis, maculis orbicularibus, 2-3 mm. diam., brunneis depressulis insidentibus, rotundatis, ca. 1 mm. diam., sparsis v. in greges minutos usque 3 mm. latos dense aggregatis confluentibusque, compactis, brunneis; teleutosporis ellipsoideis v. oblongis, apice papilla subverruciformi obtusa v. leniter acutiuscula auctis, medio vix v. leniter constrictis, basi rotundatis, levibus, brunneis, 35-50 \times 16-24; pedicello hyalino, persistenti, usque 75 μ . longo.

Hab. in foliis vivis Lophanti nepetoidis (Hyssopi nepetoidis), H. scrophulariifolii in Germania (hort. bot. Berl.) et America bor.

186. **Puccinia Leucadis** Syd. Mon. Ured. vol. I, p. 281, tab. XVIII, 1115

f. 268, *Uredo Leucadis* Syd. et Sacc. Syll. XVI, p. 361. — Soris uredosporiferis amphigenis, pierumque hypophyllis, numerosis, maculis nullis v. obsoletis insidentibus, sparsis v. aggregatis, sæpe confluentibus, nudis, pulverulentis, $\frac{1}{2}$ -1 mm. diam., ferrugineis; uredosporis pierumque perfecte globosis, subtiliter aculeatis, brunneis, 20-28 μ . diam.; teleutosporis paucis immixtis tantum visis, ellipsoideis, utrinque rotundatis, apice non v. vix incrassatis, medio non v. parum constrictis, subhyalinis, levibus, 30-38 \times 16-22; pedicello hyalino, gracili, usque 50 μ . longo.

Hab. in foliis vivis *Leucadis martinicensis* pr. Durban, Natal Africae austr. (Wood).

187. *Puccinia luandensis* Syd. Mon. Ured. vol. I, p. 287, tab. XIX, 1116 p. 271. — Soris uredosporiferis hypophyllis, sine maculis, sparsis, minutissimis, rotundatis, pulverulentis, ferrugineis; uredosporis globosis vel subglobosis, subtiliter verruculosis, dilute brunneis, 20-30 μ . diam.; soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutissimis, rotundatis, epidermide elevata cinereo-plumbea fere semper tectis; teleutosporis ellipsoideis, utrinque rotundatis, apice vix v. leniter incrassatis, usque 4 μ ., medio pierumque leniter constrictis, levibus, brunneis, 40-52 \times 24-30; pedicello hyalino, persistenti, sæpe curvato, crasso, usque 55 μ . longo.

Hab. in foliis vivis *Plectranthi spec.*, Luanda prope Port Natal Africae austr. (Wood).

188. *Puccinia pallida* Massee in Kew Bull. 1901, p. 168. — Maculis 1117 amphigenis, determinatis, pallescentibus; soris hypophyllis, centro macularum insidentibus 6-10-aggregatis, erumpentibus, intense fusco-ferrugineis; teleutosporis anguste lanceolatis, levissimis, apice incrassatis, stramineis, 50 \times 15-16; stipite crassiusculo, basi subattenuato hyalino.

Hab. in foliis *Orthosiphonis* cujusdam, Deakensberg, Natal Africae merid.

189. *Puccinia Ziziphoræ* Syd. Mon. Ured. vol. I, p. 304, tab. XX, 1118 f. 288. — *Æcidii* hypophyllis, sine maculis, solitariis, sparsis v. interdum partim per superficiem foliorum æque dispositis, cupulatis, margine vix lacerato v. integro, intus curvato, flavido; *æcidiosporis* globosis, subglobosis v. angulatis, minute verruculosis, flavidis, 12-25 μ . diam. soris uredosporiferis amphigenis, sine maculis, sparsis v. vix aggregatis, rotundatis v. ellipticis, minutis, epidermide rupta cinctis, mox nudis, cinnamomeis; uredosporis pierumque ellipsoideis v. piriformibus, subtiliter echinulatis, pal-

lide flavo-brunneis, $22-32 \times 14-24$; soris teleutosporiferis confor-
mibus, atris; teleutosporis ellipsoideis, utrinque rotundatis apice
papilla pallida lata præditis, medio leniter constrictis, verrucosis,
 $24-35 \times 20-27$; pedicello hyalino, sporam superante.

Hab. in foliis vivis Ziziphoræ canescentis, clinopo-
dioidis in Syria, Kurdistania, Turkestan, Songaria.

190. **Puccinia Monardellæ** Dudley et Thomp. in Journ. of Mycol. 1119

1904, p. 53. — Folia ramulosque juveniles contorquens; æcidii
epiphyllis sparsis, longe tenuiterque cylindræis, margine irregu-
lariter laceratis; æcidiosporis irregulariter angulosis, globosis vel
oblongis, minute denseque verrucosis, granulosis, $23-38,7 \times 16-25$;
soris uredosporiferis hypophyllis, rotundatis, sparsis brunneo-lu-
teis, parvulis; uredosporis globosis vel subangulosis, fere hyalinis,
minute sparseque echinulatis, granulosis, $22,5-25 \mu$. diam.; soris
teleutosporiferis hypophyllis, rotundatis, parvis, sparsis, raro in
circulo dispositis, nigris, pulverulentis; teleutosporis intense rufo-
brunneis, brevi ellipticis, plus minusve ad septum constrictis, utrin-
que rotundatis, papillatis, $25-31 \times 22-25$; pedicello brevi hyalino,
superne leviter colorato, basi spathulato-incrassato, circ. 5μ . diam.,
 $50-62 \mu$. longo.

Hab. in foliis caulibusque Monardellæ et M. undulatæ
in California.

191. **Puccinia istriaca** Syd. Mon. Ured. vol. I, p. 301. — Soris teleu- 1120

tosporiferis hypophyllis v. subinde cauliculis, sine maculis, sparsis
v. sæpius in greges orbiculares elongatos v. indeterminatos dispo-
sitis, minutis, vix confluentibus subpulverulentis, atro-brunneis;
teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassa-
tis, medio valde constrictis, levibus, dilute castaneo-brunneis, $33-43 \times 17-24$, episporio tenui; pedicello hyalino, tenui, brevi, ca-
duco.

Hab. in foliis caulibusque vivis Teucrii Polii, ins. Due So-
relle pr. Rovigno, Istria (P. SYDOW).

192. **Puccinia heliotropicola** Speg. Myc. argent. ser. II, 1902, p. 64. 1121

— Maculis nullis; acervulis sæpius hypophyllis, confluentibus,
subpulverulentis, obscure fulvis; soris erumpentibus fere totum
hypophyllum obtegentibus, crassiusculis e compactiusculo pulve-
rulentis; teleutosporis subellipsoideis $30-32 \times 18-20$ medio leniter
constrictis, loculo supero subgloboso apice obtuso et tenuiter tu-
nicato, infero obovato donatis; pedicello hyalino mox fluxili sub-
æquilongo.

Hab. ad folia viva *Heliotropii campestris* prope Cordoba in Argentina (T. STUCKERT).

193. **Puccinia accedens** Syd. Mon. Ured. vol. I, p. 309, tab. XXI, 1122
fig. 297. — Soris teleutosporiferis hypophyllis, maculis aridis orbicularibus v. irregularibus insidentibus, sparsis, mediocribus, 1-3 mm. diam., pulvinatis, umbrinis; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice non incrassatis, medio non vel vix constrictis, levibus, flavo-brunneolis, 22-32 \times 10-20; pedicello brunneolo, persistenti, usque 50 μ . longo; mesosporis numerosissimis, ellipsoideis v. ovato-ellipsoideis, apice non incrassatis, flavo-brunneolis, eadem magnitudine.

Hab. in foliis vivis *Lippia aristatæ*, Matto Grosso Brasilæ.

194. **Puccinia conjuncta** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 335, 1123
Syd. Mon. Ured. vol. I, p. 308, tab. XXI, fig. 296. — Soris teleutosporiferis epiphyllis, rarius paucis hypophyllis v. cauliculis, sparsis v. in caulibus aggregatis et tunc confluentibus, pulverulentis, obscure brunneis; teleutosporis e cellulis globosis v. subglobosis formatis, medio valde constrictis, apice papilla humili dilutius auctis, echinulatis, brunneis, 34-45 \times 22-28; pedicello hyalino, brevi, deciduo.

Hab. in foliis, petiolis caulibusque vivis *Lippia Pringlei*, Oaxaca Mexico (HOLWAY).

195. **Puccinia peruviana** Syd. Mon. Ured. vol. I, p. 308, tab. XXI, 1124
f. 295. — Soris teleutosporiferis hypophyllis, sine maculis, minutis, punctiformibus, sparsis, pulverulentis, atro-brunneis; uredosporis immixtis globosis v. subglobosis, valde echinulatis, flavis, 19-22 μ . diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis nec papillatis, medio semper constrictis, grosse verrucosis, brunneis, 27-38 \times 19-26; pedicello hyalino, crasso, persistenti, sporam æquante, basi leniter asperulo.

Hab. in foliis vivis *Lippia urticoidis* pr. Tarapoto Peruviae (R. SPRUCE).

196. **Puccinia Premnæ** P. Henn. in Hedw. 1902, p. 62, Syd. Mon. 1125
Ured. vol. I, p. 309. — Soris teleutosporiferis amphigenis, plerumque epiphyllis, maculis rotundatis, 2-6 mm. diam., flavidis dein fuscescentibus insidentibus, in macula laxè aggregatis, minutis, punctiformibus, rotundatis, epidermide fissa cinctis, pulverulentis, atris; teleutosporis ellipsoideis vel ovato-ellipsoideis apice rotundatis, non v. vix incrassatis, subinde papilla hyalina minuta auctis, medio non v. parum constrictis, basi rotundatis, verruculosi, brun-

neis, 25-46 \approx 16-26; pedicello hyalino, apice leniter brunneolo, tenui, usque 35 μ . longo.

Hab. in foliis vivis *Premnæ macrophyllæ* pr. Sakawa in prov. Tosa Japoniæ (JOSHINAGA).

197. **Puccinia Phaceliæ** Syd. et Holw. in Syd. Mon. Ured. vol. I, 1126 p. 314, tab. XXI, fig. 303. — Soris teleutosporiferis amphigenis, maculis flavescentibus sæpe insidentibus, in greges rotundatos 2-4 mm. diam. plerumque dense confertis et sæpe omnino confluentibus, compactis, atris; teleutosporis clavatis v. subclavatis, apice rotundatis v. subtruncatis, leniter incrassatis, usque 6 μ ., medio vix leniter constrictis, basi attenuatis, levibus, intus granulosis, brunneis, apice obscurioribus, 32-54 \approx 11-24; pedicello brunneolo, brevi, persistenti, usque 15 μ . longo; mesosporis subinde immixtis; paraphysibus brunneis sæpe numerosis.

Hab. in foliis vivis *Phaceliæ circinatae* in Monte Tacoma, Washington Americæ bor. (HOLWAY).

198. **Puccinia Richardsoni** Syd. Mon. Ured. vol. I, p. 317, t. XXII, 1127 f. 307. — Soris teleutosporiferis hypophyllis, minutis, ca. $\frac{1}{2}$ mm. diam., rotundatis, sparsis v. paucis seriatim dispositis, nudis, compactis, atro-brunneis; teleutosporis clavatis v. cylindraceo-clavatis, apice rotundatis v. leniter attenuatis, valde incrassatis, usque 16 μ ., medio leniter constrictis, deorsum attenuatis, levibus, brunneis, 40-75 \approx 11-19; pedicello hyalino, apice brunneolo, persistenti, usque 55 μ . longo.

Hab. in foliis vivis *Phlogis Richardsonii*, Helena, Montana Americæ bor. (KELSEY).

199. **Puccinia enecta** Speg. Mycet. argent. ser. II, 1902, p. 62. — 1128 Maculis nullis; acervulis plus minus velatis, atro-ferrugineis, 0,3-0,6 mm. diam., foliicolis, amphigenis; soris minutis subsparsis subpulverulentis; teleutosporis subcylindraceis apice sæpius mucronato-umbonatis semperque crassissime tunicatis, intense ferrugineo-fulvis levibus 50-60 \approx 20-25, ad medium leniter constrictis, pedicello chlorino sat crasso deorsum sensim leniterque attenuato, 20-30 \approx 5-7, fultis.

Hab. ad foia viva *Evolvuli* cujusdam prope Cordoba, in Argentina (T. STUCKERT).

200. **Puccinia Batatæ** Syd. Mon. Ured. vol. I, p. 323, tab. XXII, 1129 fig. 311. — *Æcidii* hypophyllis, maculis irregularibus brunneis v. atro-brunneis insidentibus, solitariis v. in greges minutos sine ordine dispositis, cupulatis, albis, margine elevato subintegro; æci-

diosporis globosis, subglobosis v. raro late ovatis, punctatis, flavescenscentibus, 24-33 μ . diam.; soris teleutosporiferis epiphyllis, secus circulos supra æidia efformatos dispositis v. rarius hypophyllis cum æidiis vetustis immixtis, planiusculis, rotundatis v. irregularibus, epidermide rupta cinctis, pulverulentis, atro-fuscis; teleutosporis ellipsoideo-oblongis, utrinque rotundatis, apice non v. leniter incrassatis, medio vix constrictis, atro-brunneis verrucosis 54-75 \approx 30-40; pedicello crasso, hyalino, apice brunneolo sæpe flexuoso, usque 140 μ . longo, circiter 10 μ . crasso.

Hab. in foliis vivis Ipomœæ (Batatæ) paniculatæ pr. Durban, Natal Africae austr. (Wood).

201. **Puccinia Marsdeniæ** Diet. et Holw. in Bot. Gaz. XXXI, p. 330, 1130
1901 et Syd. Mon. Ured. vol. I, p. 331, tab. XXIII, fig. 321. — Soris uredosporiferis amphigenis, maculis flavidis vel brunneolis insidentibus, plerumque sparsis, minutis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. late ellipsoideis, remote echinulatis, flavo-brunneis, 28-33 \approx 25-30, poris germinationis numerosis præditis; soris teleutosporiferis epiphyllis, conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. lenissime constrictis, dense verrucosis, demum atro-brunneis, opacis, 33-45 \approx 27-32, episporio 5-6 μ . crasso; pedicello hyalino, usque 75 μ . longo, crasso, flexuoso, sæpe oblique inserto.

Hab. in foliis vivis Marsdeniæ mexicanæ, Cuernavaca in Mexico (HOLWAY).

202. **Puccinia Tassadiæ** Syd. in Ann. Mycol. 1903, vol. I, p. 328. — 1131
Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus brunneolis sæpe indeterminatis insidentibus, minutis, in greges rotundatos v. subrotundatos ca. 2-5 mm. diam., dense gregariis, sed non v. vix confluentibus, subcompactis, brunneis; teleutosporis ovatis v. ovato-ellipsoideis, apice rotundatis, vix vel parum incrassatis, usque 2 μ . medio non constrictis, basi rotundatis, levibus, flavidis v. flavo-brunneolis, 22-28 \approx 14-22, episporio ca. 1 $\frac{1}{2}$ μ . crasso; pedicello hyalino v. subhyalino, subtenui, persistenti, usque 60 μ . longo, interdum oblique inserto; mesosporis paucis immixtis.

Hab. in foliis vivis Tassadiæ comosæ, in Brasilia (GLAZIOU).

203. **Puccinia sphærospora** Syd. et P. Henn. in Ann. Mycol. 1903, 1132
vol. I, p. 327. — Soris teleutosporiferis hypophyllis, maculis rotundatis vel indeterminatis ca. 2-5 mm. diam. flavidis insidentibus,

sparsis vel sæpius paucis vel compluribus circinatim dispositis, vix confluentibus, 0,5-1 mm. diam., compactis, atris ovato-brunneis; teleutosporis globosis, subglobosis v. ovatis, utrinque rotundatis, apice plerumque leniter incrassatis, usque 5 μ ., medio non constrictis, levibus, flavo-brunneolis, 19-27 \times 16-26, episporio ca. 3 μ . cr.; pedicello sæpissime lateraliter inserto, persistente, flavido, usque 80 μ . longo; mesosporis numerosis, globosis vel subglobosis, apice magis incrassatis.

Hab. in foliis vivis *Metastelmatis Schlechtendalii*, in insula St. Croix Americæ bor. (A. E. FRICKSECKER).

204. ***Puccinia Rhyssostelmatis*** Speg. Myc. argent. ser. II, 1902, p. 64. 1133

— Maculis nullis v. diffusis, indeterminatis, pallescentibus; acervulis sæpius hypophyllis ac totum folium obtegentibus, 0,3-0,7 mm. diam., innato-subsuperficialibus, duriusculis, non rarius confluentibus; soris amphigenis, hemisphæricis umbrinis, compactis, nudis; teleutosporis obovatis, pallide fulvis, levibus, medio non v. vix constrictis, 25-28 \times 18-20, loculis subæquilongis non vel 1-guttulatis, pedicello subhyalino, flexili, 50-100 \times 5-7 donatis.

Hab. ad folia caulesque *Rhyssostelmatis nigricantis*, prope Cordoba in Argentina (F. STUCKERT).

205. ***Puccinia æquatoriensis*** Syd. in Ann. Mycol. 1903, vol. I, n. 325. 1134

— Soris teleutosporiferis hypophyllis, maculis indeterminatis insidentibus, plus minusve sparsis vel hinc inde aggregatis, minutis, punctiformibus, compactis, griseo-brunneis; teleutosporis ovato-oblongis vel oblongis, variabilibus, apice plerumque rotundatis non v. parum incrassatis, medio plus minusve constrictis, basi rotundatis, rarius leniter attenuatis, levibus, flavidis, 16-30 \times 11-17; pedicello hyalino-flavidulo, persistenti, usque 60 μ . longo, 10 μ . cr.; mesosporis interdum paucis immixtis.

Hab. in foliis vivis *Marsdeniæ spec. pr.* Palmira in Æquatoria (A. SODIRO).

206. ***Puccinia Cynoctoni*** Speg. Myc. argent. ser. II, 1902, p. 62. — 1135

Maculis subnullis; acervulis hypophyllis plus minusve gregariis innato-subsuperficialibus, 0,3-0,7 mm. diam., pallide sordideque ex incarnato testaceis compactis duris; teleutosporis pallidissimis subclavulatis obtusis levibus ubique tenuiter tunicatis, medio non v. vix constrictis, 30-35 \times 15-18, loculis subæquilongis, pedicello hyalino 60-70 \times 5-7 persistente suffultis.

Hab. ad folia viva *Cynoctoni bulligeri* secus Carreuleofü in Argentina.

207. *Puccinia Engleriana* P. Henn. Engl. Bot. Jahrb. 1903, p. 40. — 1136

Maculis flavidulis vel fuscidulis, rotundatis vel explanatis; uredosporis hypophyllis sparsis, minutis, epidermide pallide tectis, dein pulverulentis, flavo-brunneis; uredosporis subglobosis, ovoideis v. ellipsoideis 25-35 \times 20-28, episporio flavo-fuscidulo, asperato, aculeis hyalinis vel flavidulis ca. 2 μ . longis; teleutosporis amphigenis, plerumque epiphyllis sparsis vel aggregatis, epidermide pallide velatis, atro-fuscis, pulverulentis, 0.2-1 mm. diam.; teleutosporis ellipsoideis, interdum oblonge ovoideis, apice rotundatis, haud incrassatis, medio 1-septatis, vix constrictis, 30-48 \times 22-23, episporio amœne cinnamomeo, dense aculeato asperato, aculeis subconicis, hyalinis vel flavidulis; pedicello hyalino 30-50 \times 5-6, ad basim vesiculoso inflato, interdum subappendiculato, sicco 5-7 μ ., humido usque ad 15 μ . incrassato.

Hab. in foliis Carvalhœ macrophyllæ, Ost-Usambara Africae orient. (ENGLER).

208. *Puccinia Zimmermanniana* P. Henn. Engl. Bot. Jahrb. 1903, 1137

p. 40. — Maculis rotundatis, fuscidulis; teleutosporis hypophyllis dense gregariis versiformibus, subgyrosis, pallide brunneis, epidermide fissa pallida velatis; teleutosporis ellipsoideis, ovoideis v. clavatis, apice plus minus paullo incrassatis, medio 1-septatis, constrictis, 20-40 \times 13-22, episporio fusco brunneo, levi; pedicello subhyalino, usque ad 20 \times 3-4.

Hab. in foliis Jasmini mauritiani, Usambara Africae orient. (ZIMMERMANN).

209. *Puccinia abyssinica* (P. Henn.) Syd. Mon. Ured. vol. I, p. 345, 1138

tab. XXIV, fig. 329, *Pucc. exauriens* Thuem. var. *abyssinica* P. Henn. in Hedw. 1895, pag. 329. — Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus, pallidis, brunneo-marginatis insidentibus, minutis, compactis, in greges usque $\frac{1}{2}$ cm. diam. dense confertis v. subconfluentibus, compactis, pulvinatis, atris; teleutosporis oblongis v. clavatis, apice rotundatis vel vix acutiusculis, non v. vix incrassatis, medio vix vel leniter constrictis, deorsum plerumque attenuatis, levibus, flavo-fuscis, 30-54 \times 11-19; pedicello subhyalino 15-40 μ . longo.

Hab. in foliis vivis Jasmini abyssinici, Ambuscha Abyssiniae (SCHIMPER).

210. *Puccinia aphanicondra* Lindr. in Acta pro Fauna et Fl. fenn. 1139

XXII, n. 1, pag. 86 (1902), Syd. Mon. Ured. vol. I, fasc. III, pag. 394. — Soris teleutosporiferis, amphigenis, sparsis, minutis,

punctiformibus, mox nudis, pulverulentis, atro-brunneis; uredosporis immixtis globosis, subglobosis vel ellipsoideis, echinulatis, apice incrassatis (usque 8 μ .), flavo-brunneolis, 25-36 \times 22-28, poris germinationis ternis instructis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, non v. vix incrassatis, ad medium non v. parum constrictis, basi plerumque rotundatis, rarius leniter attenuatis, levibus v. sublevibus, brunneis, 32-54 \times 23-27; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis Ligustici alati, Sipikor in Armenia turcica (P. SINTENIS).

211. **Puccinia arctica** Lagh. in Syd. Mon. Ured. vol. I, p. 349. — 1140

Æcidiis hypophyllis, maculis orbicularibus pallidis insidentibus, solitariis v. in greges rotundatos 2-4 mm. latos laxè dispositis, minutis, flavidis, cupulatis, margine lacerato, recurvato; æcidiosporis angulato-globosis v. ovoideis, punctatis, hyalino-flavescentibus, 14-20 μ . diam.; soris teleutosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis, ca. $\frac{1}{2}$ mm. diam, punctiformibus, pulverulentis, atro-brunneis; uredosporis immixtis subglobosis, oblongis v. ovoideis, echinulatis, flavo-brunneis, 22-27 \times 19-22; teleutosporis oblongis, apice papilla subhyalina obtusa usque 4 μ . alta instructis, medio non v. vix constrictis, basi rotundatis raro attenuatis, levibus, dilute brunneis, 35-43 \times 16-24; pedicello hyalino, teleutosporam æquante, deciduo.

Hab. in foliis vivis Primulæ sibiricæ in Norvegia arctica et Lapponia rossica.

212. **Puccinia oregonensis** Earle in New York Bot. Gard. 1902, 1141

pag. 349. — Caulicola vel foliicola; pyenidiis minutis, brunneolis, fere semper epiphyllis; pseudoperidiis dense congestis sæpe amphigenis brevibus et latis 750 \times 250, interdum laceratis e cellulis prismaticis 30 \times 20-25 compositis; æcidiosporis subovalibus 20 \times 16 paullulo reticulatis, membrana tenui, 1,5 μ . cinctis; uredosporis non visis; soris teleutosporiferis hypophyllis, in maculis luteolis indefinitis, sparsis v. confluentibus, ovalibus 1 \times 0,75 mm., subcutaneis, fere nigris; teleutosporis brunneo-nigris, ovalibus, apice rotundatis, leviter constrictis, episporio tenui, opaco, rugoso-tuberculato donatis; stipite fragili, hyalino.

Hab. in caulibus foliisque Saniculae bipinnatæ, Corvallis, Oregon. — A *Pucc. Saniculae* Grev. vere distincta; *P. Pimpinellæ* (Strauss) Link affinis.

213. **Puccinia microsphincta** Lindr. in Acta Soc. pro Fauna et Flora 1142

fennica XXII, n. 1, p. 74 (1902), Syd. Mon. Ured. vol. I, p. 366. — Soris teleutosporiferis amphigenis v. petiolicolis, sparsis, rotundatis v. oblongis, mediocribus 1-2 mm. longis, sæpe nervos sequentibus, mox nudis, compactiusculis atris; teleutosporis oblongo-ellipsoideis v. oblongo-clavulatis, apice rotundatis, vix incrassatis, medio vix v. leniter constrictis, basi plerumque leniter attenuatis, indistincte undulato-tuberculatis, brunneis, 35-54 × 20-27, episporio usque 4 μ . cr.; pedicello hyalino, crassiusculo, subpersistenti, sporam æquante v. ea brevior.

Hab. in foliis petiolisque vivis *Cari atrosanguinei* in Turkestan (TRANZSCHER).

214. **Puccinia dolomitica** Kabát et Bubák, in *Österr., bot. Z.* 1904, n. 4-5. 1143

— Teleutosoris hypophyllis in greges plus minusve latos aggregatis, ad nervos et petiolos hypertrophias et torsiones efficientibus, semiglobosis, diu epidermide tectis denique rimose erumpentibus, cinnamomeis, subinde confluentibus; teleutosporis ovato-ellipsoideis v. oblongis, sæpe irregularibus, 26-44 × 15-26 rarius usque 30-40 μ . latis, utrinque rotundatis v. leviter attenuatis, medio non v. vix constrictis, poris germinationis binis, papilla hyalina vix 1,5-2 μ . alta tectis, tunica tenui 1-2 μ . crassa, pallide brunnea, levi v. indistincte punctata; pedicello hyalino; tenui, deciduo, usque 40 μ . longo.

Hab. in foliis *Cerefolii silvestris*, Campitello Val di Fassa Italiæ bor. — Teleutosp. tricellulares non raro occurrunt.

215. **Puccinia aromatica** Bubák apud Lindroth in *Acta Soc. pro* 1144

Fauna et Flora fennica XXII, n. 1, p. 22 (1902), Syd. Mon. Ured. vol. I, p. 369. — *Æcidiis* hypophyllis v. petiolicolis, sæpe nervos sequentibus, cupulato-pustuliformibus, verruculosi, hyalino-flavescentibus, 19-24 × 15-22; soris uredosporiferis hypophyllis, sparsis, minutis v. majusculis, usque 2 mm. diam., cinnamomeis, pulverulentis; uredosporis subglobosis, ellipsoideis v. ovatis, echinulatis, flavo-brunneolis, 21-28 × 17-23, poris germinationis ternis instructis; soris teleutosporiferis hypophyllis, sparsis, in folio minutis rotundatis, in petiolis oblongis, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix constrictis, reticulatis, brunneis, 26-34 × 19-24; pedicello hyalino, tenui.

Hab. in foliis petiolisque vivis *Chærophylli aromatici* in Germania, Austria, Hungaria, Russia.

216. **Puccinia retifera** Lindr. in *Acta Soc. pro Fauna et Flora fen-* 1145

nica XXII, n. 1, p. 20 (1902), Syd. Mon. Ured. vol. I, p. 368, tab. XXIV, fig. 334. — *Æcidii*s hypophyllis, plerumque nervos foliorum sequentibus vel petiolicolis, pustuliformibus, cæomatiformibus, flavidis, pariete vix evoluta; *æcidiosporis* angulato-globosis v. ovatis, subtiliter verruculosus, flavescentibus, 19-30 \times 17-22; soris uredosporiferis hypophyllis, sparsis, minutis, rotundatis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ovatis, echinulatis, flavo-brunneolis, 18-27 \times 17-21, poris germinationis ternis præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix v. leniter constrictis, reticulatis, brunneis, 26-36 \times 19-24; pedicello hyalino, tenui, sporam æquante, deciduo.

Hab. in foliis petiolisque vivis *Chærophylli* bulbosi in Germania, Hungaria et Russia.

217. **Puccinia Myrrhis** Schw. Syn. N. Am. Fg. 1831, p. 296, Lindr. 1146 in Acta Soc. pro Fauna et Fl. fennica XXII, n. 1, p. 28 (1902), Syd. Mon. Ured. vol. I, p. 371. — Soris uredosporiferis amphigenis, minutis, rotundatis, punctiformibus; uredosporis globosis, subglobosis v. ellipsoideis, præcipue ad apicem dense subtiliterque echinulatis, basim versus levibus, flavis, 20-25 \times 18-23, poris germinationis duobus præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovatis, apice rotundatis v. attenuatis, reticulatis, brunneis, 26-32 \times 16-21; pedicello hyalino, deciduo.

Hab. in foliis vivis *Chærophylli* præcumbentis, prope Lexington, Kentucky et Washington Americæ bor.

218. **Puccinia Apii** Desm. Cat. des plantes omis. 1823, p. 25, Syd. 1147 Mon. Ured. vol. I, p. 359; cfr. Sacc. Syll. VII, p. 634, n. 2211, p. p. — *Æcidii*s hypophyllis v. petiolicolis, maculis orbicularibus v. irregularibus minutis flavidis insidentibus, in greges rotundatos v. in caule elongatos dispositis, brevissime cylindraceis, margine albo, lacerato; *æcidiosporis* globosis v. angulato-globosis, subtiliter verruculosus, aurantiacis, 17-24 μ . diam.; soris uredosporiferis hypophyllis, sparsis, hinc inde confluentibus, pulverulentis, cinnamomeo-brunneis; uredosporis subglobosis, ovatis v. ellipsoideis, echinulatis, apice leniter incrassatis, 3-5 μ , flavo-brunneolis, 24-35 \times 20-26, poris germinationis ternis instructis; soris teleutosporiferis hypophyllis subinde etiam epiphyllis v. petiolicolis, sparsis v. hinc inde confluentibus rotundatis v. irregularibus, pulverulentis, atro-

brunneis; teleutosporis oblongis v. ovato-oblongis, apice rotundatis, non incrassatis, medio non v. parum constrictis, basi rotundatis v. leniter attenuatis, levibus, brunneis, 30-50 \approx 15-23; pedicello hyalino, tenui, deciduo.

Hab. in foliis petiolisque vivis Apii graveolentis, prostrati, Selini japonici in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Hollandia, Britannia, Dania, Suecia, Fennia, India or., Japonia et Tasmania.

219. **Puccinia Petroselini** (D. C.) Lindr. in Acta Soc. pro Fauna et 1148
Fl. fenn. XXII, n. 1, pag. 84 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 399, *Uredo Petroselini* D. C. — Soris uredosporiferis plerumque hypophyllis, sparsis vel hinc inde paucis aggregatis, minutissimis v. confluyendo majoribus, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, omnino echinulatis v. ad medium subinde sublevibus, apice incrassatis (5-6 μ .), flavidis v. flavo-brunneolis, 22-29 \approx 21-25, poris germinationis ternis rarius binis instructis; soris teleutosporiferis conformibus, obscure brunneis, in petiolis caulibusque sæpe majoribus elongatis et confluentibus; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio parum constrictis, basi rotundatis v. leniter attenuatis, levibus v. sublevibus, brunneis, 28-48 \approx 18-25; pedicello hyalino, tenui, brevi, deciduo.

Hab. in foliis, petiolis caulibusque Æthusæ Cynapii, cynapioidis, Anethi graveolentis, Petroselini sativi in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Britannia, Dania, Suecia, Norvegia.

220. **Puccinia phymatospora** Lindr. in Acta Soc. pro Fauna et Flora 1149
fennica XXII, n. 1, p. 68 (1902), D. Sacc. Myc. ital. 247, Syd. Mon. Ured. vol. I, fasc. III, pag. 415. — Soris teleutosporiferis hypophyllis, maculis flavidis insidentibus, sparsis, minutis, rotundatis, subpulverulentis, atris; uredosporis immixtis, ellipsoideis v. ovato-ellipsoideis, echinulatis, apice valde incrassatis, usque 9 μ ., flavescens, 28-34 \approx 20-25, poris germinationis ternis instructis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non vel vix incrassatis, medio non v. vix constrictis, subtilissime punctatis, ad marginem undulatis, brunneis, 32-40 \approx 24-32; pedicello hyalino, deciduo.

Hab. in foliis vivis Seseleos spec., in monte S. Angelo Gargano Italiæ austr. (A. Fiori).

221. **Puccinia Sileris** Voss in Verhandl. Zool. bot. Gesellsch., Wien 1150

XXVI, p. 120 (1876), Syd. Mon. Ured. vol. I, fasc. III, p. 415. — *Æcidii* hypophyllis, maculis flavo-brunneolis insidentibus, cupulato-pustuliformibus, pariete parce evoluto; *acidiosporis* globosis v. subglobosis, subtiliter verruculosus, hyalino-flavescentibus, 18-25 μ . diam.; *soris* uredosporiferis hypophyllis, maculis minutissimis flavis v. flavo-brunneolis insidentibus, sparsis, minutis, rotundatis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, dense aculeatis, flavis v. dilute flavo-brunneolis, 24-27 \times 22-26, episporio ca. 5 μ . crasso, poris germinationis ternis, ut videtur, præditis; *soris* teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix v. leniter constrictis, reticulatis, 30-40 \times 22-30; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis *Sileris trilobi* in Germania, Austria, Hungaria, Rossia, Asia minori.

222. *Puccinia Bonanniae* Syd. Mon. Ured. vol. I, pag. 363. — *Soris* 1151 teleutosporiferis amphigenis, sine maculis, sparsis, minutis, rotundatis, $\frac{1}{2}$ -1 mm. diam., epidermide plumbea nitida diu vel fere semper tectis, pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, sæpe angulatis, plerumque utrinque rotundatis, apice non v. raro lenissime incrassatis, medio non v. vix constrictis, levibus, brunneis, 35-50 \times 24-30, episporio crassiusculo, usque 3 μ .; pedicello hyalino, brevi.

Hab. in foliis vivis *Bonanniae resiniferæ*, in mont. Nebrodibus Siciliæ austr. (G. STROBL).

223. *Puccinia corvarensis* Bubák. (Esterr. bot. Zeitschr. 1900, n. 8. — 1152 *Teleutosoris* hypophyllis, plerumque nerviculis et interdum petioliculis, magnitudine varia, subscutellatis poro rotundo dehiscentibus, cinnamomeo-brunneis, pulvereis, matricem deformantibus; teleutosporis ovoideis ellipsoideis v. oblongis, medio constrictis, utrinque tenuatis v. rotundatis, 22-42 \times 15-24, plerumque 32 \times 20-22, brunneis, levibus; pedicello sporam dimidiam æquante; poro germinativo amplo in quoque loculo unico, verrucula 2-4 μ . alta, initio tectis.

Hab. in foliis *Pimpinellæ magnæ*, in valle Corvara agri Tridentini.

224. *Puccinia leioderma* Lindr. Acta Soc. pro Fauna et Flora fennica XXII, n. 1, p. 110 (1902) et Syd. Mon. Ured. vol. I, p. 354. — 1153 *Æcidii* hypophyllis, maculis brunneolis insidentibus, solitariis v. in greges minutos 2-3 mm. diam. dispositis, cupulatis, albis, mar-

gine leniter recurvato, minutissime denticulato; æcidiosporis angulato-globosis, subtilissime verruculosis, subhyalinis, 15-22 μ . diam.; soris teleutosporiferis hypophyllis, maculis minutis indeterminatis brunneolis insidentibus, minutis, vix $\frac{1}{2}$ mm. diam., epidermide tectis, dein nudis et in acervulos 1-3 mm. latos obscure brunneos confluentibus, pulverulentis; teleutosporis ovatis vel ellipsoideis, apice rotundatis, medio non vel vix constrictis, basi plerumque rotundatis, levibus, brunneis, 25-33 \times 13-22; pedicello hyalino, brevi tenui, deciduo.

Hab. in foliis *Ægopodii alpestris*, in Turkestan, Sibiria.

225. *Puccinia Ægopodii* Syd. Mon. Ured. vol. I, p. 6, tab. I, f. 5 1154
(1902). — Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, 1-1,5 mm. diam., orbicularibus v. suborbicularibus, epidermide lacerata cinctis v. semitectis, pulverulentis, atris; uredosporis immixtis, globosis v. subglobosis, echinulatis, flavo-brunneis, 23-27 μ . diam.; teleutosporis late ellipsoideis, valde regularibus, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosis, castaneo-brunneis, 37-46 \times 27-35, episporio crasso, usque 4 μ .; pedicello brevissimo hyalino.

Hab. in foliis vivis *Ægopodi berardioidis*, prope Ker-
man Persiæ australis (BORNMÜLLER).

226. *Puccinia Laserpitii* Lindr. in Acta Soc. pro Fauna et Fl. fen- 1155
nica XXII, n. 1, pag. 35 (1902) Syd. Mon. Ured. vol. I, f. III,
p. 391. — Æcidiis hypophyllis, petiolicolis v. cauliculis, pustulato-
cupuliformibus, margine albido, irregulariter lacerato; æcidiosporis
globosis, subglobosis v. ellipsoideis, verruculosis, subhyalinis, 25-
36 \times 20-26; soris uredosporiferis hypophyllis, sparsis, minutissimis,
punctiformibus, pulverulentis, cinnamomeis; uredosporis subglobo-
sis v. ellipsoideis, echinulatis, brunneis, 26-33 \times 22-26, poris ger-
minationis binis, rarius ternis instructis; soris teleutosporiferis
conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque ro-
tundatis, apice non incrassatis, medio vix constrictis, reticulatis,
brunneis, 23-36 \times 19-25; pedicello hyalino, deciduo.

Hab. in foliis caulibusque vivis *Laserpitii Archangelicæ*
in Moravia (BUBAK).

227. *Puccinia Heraclei* Grev. in Scott. Crypt. Fl. I, tab. 42 (1823), 1156
Syd. Mon. Ured. vol. I, fasc. III, p. 387. — Æcidiis hypophyllis
v. sæpissime petiolicolis, præcipue nervos foliorum sequentibus et
maculis leniter incrassatulis flavis v. flavobrunneolis insidentibus,

in greges irregulares v. elongatos dense dispositis, cupulato-pustuliformibus, pariete parce evoluta; acidiosporis globoso-angulatis, subtiliter verruculosus, flavescentibus, $21-32 \approx 18-28$; soris uredosporiferis amphigenis, sparsis, minutis, castaneo-brunneis; uredosporis globosis, subglobosis v. ellipsoideis, dense echinulatis, dilute brunneis, $25-32 \approx 19-27$, poris germinationis ternis vel quaternis instructis; soris teleutosporiferis amphigenis, minutis, sparsis vel ad nervos subinde plus minusve confluentibus, pulverulentis, atro-brunneis v. atris; teleutosporiferis ellipsoideis, utrinque rotundatis, medio vix v. parum constrictis, reticulatis, brunneis, $26-37 \approx 18-27$; pedicello hyalino, brevi, deciduo.

Hab. in foliis petiolisque Heraclei sibirici, Sphondylii in Germania, Italia, Gallia, Hollandia, Belgio, Britannia, Suecia, Norvegia, Fennia.

228. *Puccinia Bakeriana* Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1157

Soris uredosporiferis hypophyllis, rotundatis, subimmersis, pulverulentis, cinnamomeo-brunneis; uredosporis latis, globosis vel obovoideis, $39-45 \approx 34-42$; episporio aurantiaco-luteo $4-6 \mu$. crasso, superne usque 12μ . dense tuberculato; poris 3 latis, æquatorialibus; soris teleutosporiferis, sparsis, hypophyllis, subimmersis, rotundatis, pulverulentis, intense brunneis; teleutosporis ellipsoideis, interdum obovato-oblongis, irregularibus, $40-55 \approx 24-32$, utrinque rotundatis, ad septum non vel vix constrictis; episporio $2,5-3 \mu$. crasso, dense tuberculato, intense brunneo; pedicello brevi, hyalino, subdeciduo.

Hab. in foliis Heraclei lanati, Pillar Point, San Mateo County Californiæ (C. F. BAKER).

229. *Puccinia athamanthina* Syd. Mon. Ured. vol. I, p. 362. — *Æci-* 1158

diis laxè et irregulariter aggregatis, cupulato-pustuliformibus, pariete parce verruculosus, $19-30 \approx 13-21$; soris uredosporiferis sparsis, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, subtiliter denseque echinulatis, flavo-brunneolis, $23-30 \approx 19-25$, poris germinationis ternis instructis; soris teleutosporiferis sparsis, minutis, punctiformibus, rotundatis, in caule oblongis v. elongatis et sæpe subconfluentibus, pulverulentis, atris vel atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel parum constrictis, reticulatis, obscure brunneis, $30-36 \approx 24-30$; pedicello hyalino, tenui.

Hab. in foliis caulibusque vivis Athamanthæ cretensis,

Matthioli, vestinæ, verticillatæ (?) in Germania, Austria, Italia et Græcia.

230. *Puccinia angelicicola* P. Henn. in Hedw. 1903, pag. (107). — 1159

Maculis flavidulis; uredosoris plerumque epiphyllis, minutis, subochraceis; uredosporis subglobosis, ovoideis v. ellipsoideis, hyalino-brunneis, 18-24 × 17-20, episporio aculeato-verrucoso; teleutosoris amphigenis sparsis vel gregariis, atris, epidermide fissa, pallida, basi velatis; teleutosporis ellipsoideis v. ovoideis, apice rotundatis, interdum applanatis, haud incrassatis, flavo-brunneis, medio 1-septatis, leniter constrictis; episporio castaneo, reticulato, 22-34 × 18-23; pedicello ca. 10 × 3,5-4 hyalino.

Hab. in foliis Angelicæ Miquelianæ, Mt. Takao, Musashi Japoniæ (N. NAMBU).

231. *Puccinia Angelicæ* (Schum.) Fuck. Symb. Myc. p. 52 (1869). — 1160

Sacc. Syll. VII, p. 703 (descriptio incompleta), Syd. Mon. Ured. vol. I, p. 357. — Soris uredosporiferis primariis præcipue secus nervos evolutis v. petiolicolis, in foliis in greges minutos dispositis, primitus intense obscureque flavis, dein obscurioribus, tandem atro-brunneis; secundariis hypophyllis, subinde etiam epiphyllis, maculis minutissimis dilutionibus sæpe insidentibus, sparsis, minutis, pulverulentis, flavo-cinnamomeis; uredosporis ovatis, ellipsoideis v. ovato-oblongis, echinulatis, apice valde incrassatis, 5-10 μ , basi minus incrassatis, ca. 4 μ , dilute brunneis, 25-40 × 22-28, poris germinationis ternis instructis; soris teleutosporiferis plerumque amphigenis, sparsis, minutis, rotundatis, pulverulentis, atro-brunneis v. atris; teleutosporis ellipsoideo-oblongis v. oblongis, apice rotundatis, non v. vix incrassatis, medio non v. parum constrictis, basi rotundatis v. leniter attenuatis, levibus, brunneis, 30-50 × 16-24; pedicello hyalino, brevi, deciduo.

Hab. in foliis petiolisque vivis Angelicæ decurrentis, silvestris, Archangelicæ littoralis, officinalis in Germania, Hollandia, Dania, Britannia, Suecia, Norvegia, Fennia, Rossia, Turkestan.

232. *Puccinia Ferrarisii* Lindr. in Acta pro Fauna et Fl. fenn. XXII, 1161

n 1, p. 94 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 405. — Soris uredosporiferis plerumque amphigenis, minutissimis, rotundatis, brunneis; uredosporis ovato-ellipsoideis v. subglobosis, echinulatis, apice incrassatis (usque 6,5 μ), 25-34 × 21-27, episporio crassiusculo, poris germinationis plerumque ternis instructis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ovato-

ellipsoideis vel ovato-clavulatis, apice rotundatis, vix incrassatis, medio parum constrictis, basi sæpe leniter attenuatis, levibus, brunneis, 27-38 × 19-24; pedicello hyalino, tenui, deciduo.

Hab in foliis vivis Peucedani Oreoselini (?), Crescentino Ital. bor. (T. FERRARIS).

233. *Puccinia tokyensis* Syd. Mon. Ured. I, 1902, p. 377, *Æcidium* 1162

Cryptotænæ Diet. — Syll. XVI, p. 335, *Uredo Cryptotænæ* Syd.

— Syll. XVI, p. 355. — *Æcidiosporis* et *uredosporis* at ll. cc. soris teleutosporiferis epidermide fissa cinctis v. semitectis, atro-brunneis; teleutosporis ovoideis v. ellipsoideis, apice rotundatis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis, levibus, brunneis, 22-35 × 16-22; episporio tenuissimo; pedicello hyalino tenuissimo, deciduo.

Hab. in foliis petiolisque vivis *Cryptotænæ japonicæ*, Tokyo Japoniæ.

234. *Puccinia Araliæ-cordatæ* P. Henn. Fungi Pilze Japan. II, p. 151 1163

(Hedw. 1904). — Maculis fuscis vel centro pallidis, rotundatis vel explanatis; soris hypophyllis sparsis vel aggregatis, atris pulverulentis; uredosporis subglobosis, ellipsoideis v. ovoideis, 25-40 × 20-28 µ., episporio brunneo, aculeato-echinato; teleutosporis oblonge ellipsoideis vel clavatis, apice hemisphærico-papillatis, 35-45 × 22-30 µ., medio 1-septatis, constrictis, brunneis, levibus; pedicello 30-40 × 4-5 µ. hyalino-fuscidulo.

Hab. in foliis *Araliæ cordatæ*, Yamato, Mt. Yoshina Japoniæ (T. YOSHINAKA). — A *P. Araliæ* Ell. et Ev. tam uredosporis quam teleutosporis papillatis omnino diversa. Non raro occurrunt teleutospore ob compressionem cuboideæ et subinde in eodem pedicello binæ.

- 235 *Puccinia imperspicua* Syd. Mon. Ured. vol. I, p. 361. — Soris 1164

teleutosporiferis amphigenis, sparsis, minutissimis, vix perspicuis, pulverulentis, atris; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, incrassatis, usque 8 µ., medio vix v. leniter constrictis, basi plerumque rotundatis, levibus, castaneo-brunneis, 38-52 × 25-35, episporio crasso ca. 4 µ.; pedicello hyalino, crassiusculo, usque 70 µ. longo, sed deciduo.

Hab. in foliis vivis *Arracachæ multifidæ*, Rio Hondo in Mexico (PRINGLE).

236. *Puccinia Phellopteri* Syd. Mon. Ured. vol. I, fasc. III, p. 406. — 1165

Soris uredosporiferis amphigenis, sparsis, minutis, pulverulentis, cinnamomeis; uredosporis subglobosis vel ellipsoideis, valide acu-

leatis, episporio crasso 5-7, apice usque 11 μ . incrassatis, flavis 27-38 \times 26-30, soris germinationis tenuis instructis; soris teleutosporiferis, conformibus, obscurioribus; teleutosporis ellipsoideis, oblongis v. oblongo-clavulatis, apice rotundatis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis vel attenuatis, levibus, brunneis, 32-46 \times 19-27; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis *Phellopteri littoralis*, Port Chusan Koreæ (C. WILFORD).

237. **Puccinia sphalerocondra** Lindr. in Acta pro Fauna et Fl. fenn. 1166 XXII, n. 1, pag. 63, (1902). Syd. Mon. Ured. vol. I, fasc. III, p. 419. — *Æcidii* hypophyllis v. petiolicolis, maculis rotundatis, usque 1 cm. diam. insidentibus, in greges majusculos laxè dispositis vel solitariis, cylindræis, margine irregulariter lacerato, flavido; *æcidiosporis* angulato-globosis, subtiliter punctatis, flavidis 25-32 \times 19-24; soris teleutosporiferis plerunque hypophyllis vel petiolicolis, sparsis 0.5-1.5 mm. diam., rotundatis vel in petiolis ellipticis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio vix v. parum constrictis, basi rotundatis, vel leniter attenuatis, subtilissime verruculosis, brunneis 30-42 \times 19-23, episporio 2-3 μ . crasso; pedicello hyalino tenui, deciduo.

Hab. in foliis petiolisque vivis *Velææ argutæ*, Pasadena, California (Mc CLATCHIE).

238. **Puccinia Doremæ** Speschn. in Fungi paras. Transcapici et turkestanici 1901, p. 11, Syd. Mon. Ured. vol. I, p. 378. — Soris teleutosporiferis hypophyllis, maculis nullis v. flavescentibus insidentibus, valde inflatis, sæpissime in caule confluentibus, primo epidermide tectis, atro-brunneis; uredosporis inmixtis subglobosis v. ovatis, echinulatis, brunneis, 20-24 \times 16-20, poris germinationis binis rarius ternis instructis; teleutosporis oblongis v. ellipsoideis, apice modice incrassatis, medio lenissime constrictis, flavo-brunneis 32-34 \times 15-19; pedicello hyalino, usque 16 μ . longo.

Hab. in foliis caulibusque *Doremæ* spec. in Turkestan.

239. **Puccinia Coulterophyti** Diet. et Holw. in Bot. Gaz. 1901, p. 335. 1168 — Maculis luteis vel nullis; soris hypophyllis minutis, sparsis; uredosporiferis pallide ochraceis; uredosporis obvatis 29-36 \times 22-29 episporio hyalino apice valde incrassato, verrucis sparsis, globosis donato; soris teleutosporiferis nigro-brunneis, immersis, pulverulentis; teleutosporis oblongo-ellipsoideis vel irregularibus, utrinque rotundatis parce constrictis, 33-50 \times 23-30, episporio pallide

brunneo, verrucoso, interdum irregulariter rugoso; pedicello deciduo.

Hab. in foliis Coulterophyti laxi, Chapala et Urnapam in Mexico.

240. *Puccinia Kundmanniæ* Lindr. Act. Soc. pr. Fauna et Fl. fenn. 1169

1902, XXII, p. 136, Syd. Mon. Ured. I, pag. 390, f. 340, Stat. æcidiosporus: *Æcidium Helosciadii* Har. — Syll. XVI, p. 335. — Pycnidiis amphigenis numerosis æque sparsis, melleis; æcidiis plerumque hypophyllis, sparsis, solitariis, cupulatis, flavidis, margine crasso integro, vix revolutis; teleutosoris, hypophyllis, sine maculis, sparsis, minutissimis, ægre conspicuis, epidermide primitus tectis, brunneis; teleutosporis ovato-oblongis v. oblongo-clavulatis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque attenuatis, levibus, flavo-brunneis, 32-48 × 16-25; pedicello hyalino, deciduo.

Hab. in foliis Kundmanniæ siculæ in insula Melita (Malta) et Algeria.

241. *Puccinia dictyospora* Tranzsch. in Act. pro Fauna et Fl. fenn. 1170

nica XXII, n. 1, p. 48 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 420. — Æcidiis secus folii nervos in greges magnos elongatos densiuscule dispositis, cupulatis v. breviter cylindræis, margine albido irregulariter lobato; æcidiosporis angulato-globosis vel ellipsoideis, subtilissime verruculosus, hyalinis, 17-26 µ. diam.; soris teleutosporiferis amphigenis, sparsis, vix confluentibus, minutis, rotundatis, pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio vix v. parum constrictis, basi rotundatis v. attenuatis, reticulatis, dilute brunneis, 28-42 × 20-24; pedicello deorsum hyalino, apicem versus flavido et incrassato.

Hab. in foliis Umbelliferæ cujusdam indeterminatæ et Cari spec., in Turkestan (KOMAROV).

242. *Puccinia Gayophyti* Speg. Myc. Argent. ser. II, 1902, p. 63. 1171

— Maculis nullis; acervulis cauli-follicolis, innato-prominulis, sæpe confluentibus, compactis, atro-ferrugineis, 0,3-0,5 mm. diam.; teleutosporis obovatis, apice præcipue crasse tunicatis, parum infra medium septatis, vix constrictis levibus, intense fulvis, oculis 1-guttulatis, supero sæpius sublongiore crassioreque, 30-32 × 18-20; pedicello hyalino fragili subbrevisiore 15-20 × 5-7 suffultis.

Hab. ad caules foliaque Gayophyti humilis prope Puente

del Juca, Mendoza in Argentina. — Species *P. sphærostigmati* Diet. et Neg. valde affinis sed certe distincta.

243. *Puccinia sphæroidea* P. Henn. in Hedw. 1903, p. (107). — Soris 1172
cauliculis, gregariis, interdum follicolis, sphæroideis, hemisphæricis
v. pulvinatis, castaneis, v. rufo-brunneis, ca. 350 μ . diam.; teleu-
tosporis ellipsoideis v. ovoideis, apice obtuso rotundatis v. appla-
natis, vix paullo incrassatis, medio septatis, leniter v. haud con-
strictis v. oblique verticaliter septatis, interdum continuis, 20-
30 \approx 13-20, episporio flavo-brunneo, levi; pedicello usque ad 80
 μ . elongato, hyalino fuscidulo, 3-4 μ . cr.

Hab. in caulibus foliisque Jussiiæ spec. prope Baia Californiæ (C. A. PURPUS).

244. *Puccinia Zauschneriæ* Syd. Mon. Ured. vol. I, fasc. III, p. 435, 1173
tab. XXV, fig. 361. — *Æcidii*s hypophyllis, copiosis, plerumque
totam folii superficiem obtegentibus, cupulatis, flavidis, margine
leniter inciso; *æcidiospori*s globosis, subglobosis v. angulatis, pun-
ctatis, hyalino-flavescentibus, 16-22 μ . diam. vel 19-25 \approx 14-18;
soris uredosporiferis hypophyllis, sparsis, minutis, rotundatis, epi-
dermide lacerata cinctis, brunneis; uredosporis globosis v. subglo-
bosis, aculeatis castaneis 24-30 μ . diam.; soris teleutosporiferis
hypophyllis, conformibus, subpulverulentis obscure brunneis; te-
leutosporis ellipsoideis vel oblongis, utrinque rotundatis, apice in-
crassatis 5-8 μ . medio non vel vix constrictis, levibus, obscure
brunneis, 32-40 \approx 18-25, rarius usque 43 μ . long.; pedicello hya-
lino brevissimo.

Hab. in foliis vivis Zauschneriæ californicæ in Californiæ, Amer. bor.

245. *Puccinia Epilobii* DC. Fl. franç. II, p. 221 (1805) et VI, p. 61 1174
(1815) nec *P. Epilobii* Schröt. et Sacc. Syll. VII, pag. 608, quæ
= *P. Epilobii-tetragoni* (DC.) Wint. — Teleutosoris hypophyllis
sparsis v. plerumque confertis, sæpe per totam folii superficiem
æque distributis, rarius confluentibus, rotundatis, epidermide lace-
rata cinctis, pulverulentis, rufo-brunneis v. atro-brunneis; teleuto-
sporibus oblongis v. ellipsoideis, utrinque rotundatis, raro basim ver-
sus leniter tenuatis, apice non v. lenissime incrassatis, medio valde
constrictis, levissime verrucosis, brunneo-fuscidulis, 27-48 \approx 16-25;
pedicello hyalino 10-16 μ . long.

Hab. in foliis vivis *Epilobii* alpini, alsinefolii, anagallidifolii, davurici, organifolii, palustris, rosei in Germania, Helvetia, Hungaria, Italia, Gallia, Britannia, Dania,

Suecia, Rossia et Groenlandia. — Huc ducenda *Pucc. Veronica Anagallidis* Oud., quæ revera in *Epilobii* specie, nec *Veronica* provenit.

- 246 *Puccinia Jambosæ* P. Henn. Fungi S. Paulenses I, in Hedw. 1175
1902, pag. 105. — Maculis fuscis, rotundato-explanatis, exaridis; poris amphigenis, aggregatis, applanatis, diutius epidermide brunnea tectis; uredosporis ellipsoideis v. ovoideis, flavis v. subhyalinis, 15-20 \times 13-18, episporio asperatis; teleutosporis clavatis, apice paullo incrassatis, obtuso-rotundatis, 1-septatis, paullo v. haud constrictis, 28-40 \times 15-10, flavo-brunneis, levibus; pedicello subhyalino, 15-18 \times 2,5-3.

Hab. in foliis *Jambosæ vulgaris* pr. S. Paulo Brasilæ.

247. *Puccinia canadensis* Arthur Bull. Torr. Bot. Cl. 1904, p. 2. — 1176
Soris teleutosporiferis amphigenis, sæpe gregariis, pustuliformibus, coalescentibus, immersis, pulverulentis, pallide brunneis; teleutosporis subellipsoideis vel lineari-oblongis, 37-58 \times 10-15, utrinque obtusis, episporio 1-2 μ . crasso, cinnamomeo-brunneo, minute rugoso, apice hyalino et incrassatulo, 3-5 μ .; pedicello exili, brevi, hyalino, deciduo.

Hab. in foliis *Violæ orbiculatæ*, Laggan, Alberta, Amer. bor. et Glacier in Columbia Britannica.

248. *Puccinia Heliocarpi* Syd. Mon. Ured. vol. I, fasc. III, p. 447, 1177
tab. XXVI, fig. 370. — Soris teleutosporiferis hypophyllis, maculis rotundatis 2-4 mm. diam. fuscis v. flavo-fuscis insidentibus, minutis, sed plerumque in greges irregulariter confluentibus, pulvinatis, obscure brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. attenuatis, non vel lenissime incrassatis, medio leniter constrictis, basi attenuatis, levibus, pallide flavo-brunneolis, 30-54 \times 11-18, episporio tenuissimo; pedicello hyalino, persistenti, usque 80 μ . longo.

Hab. in foliis vivis *Heliocarpi americani*, Puente de Chimbo Æquatoris (LAGERHEIM).

249. *Puccinia conglobata* Syd. Mon. Ured. vol. I, fasc. III, fig. 448, 1178
tab. XXVI, fig. 372. — Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus, 2-5 mm. diam., flavis centro fuscis insidentibus, plerumque paucis in globulum 1-2 mm. diam., omnino confluentibus, compactis obscure brunneis; teleutosporis ellipsoideis v. ovatis, utrinque rotundatis, apice non vel vix incrassatis, medio non v. lenissime constrictis levibus, pallide flavo-

brunneolis, 24-32 \times 19-25, episporio crasso: pedicello hyalino, crasso, persistenti, usque 80 μ . longo, saepius e latere inserto.

Hab. in foliis vivis Trumfettiae spec, prope Pesqueria Aëquatoria (LAGERHEIM)

250. **Puccinia Komarovi** Tranzsch. in Syd. Mon. Ured. vol. I, fasc. III, 1179 p. 451. — Aëcidii cauliculis et petioliculis totam superficiem partium infectae caulis occupantibus, aggregatis, immersis, demum apertis, breviter cupulatis, margine primum integro incurvato, dein lacerato, parum e matrice emergente; acidiosporis angulato-globosis v. angulato-ellipsoideis, subtilissime echinulatis, intus aurantiacis 16-20 \times 14-18; soris uredosporiferis hypophyllis, maculis minutis flavescens v. subnullis insidentibus, sparsis v. circa majorem centalem circinatim dispositis, rotundatis, pulverulentis, cinnamomeis; uredosporis subglobosis v. ellipsoideis, echinulatis, dilute brunneolis, 22-29 \times 17-24, poro germinationis singulo apicali saepe papillula lata humili tecto instructis; soris teleutosporiferis hypophyllis maculis minutis flavidis plerumque insidentibus, sparsis v. circinatim dispositis, minutis, rotundatis, mox nudis, castaneo-brunneis; teleutosporis ellipsoideis, ovatis v. subclavulatis, apice papilla hyalina praeditis, interdum etiam sub septo apiculo minuto instructis, medio non v. lenissime constrictis, sublevibus, castaneo-brunneis, 27-40 \times 16-25; pedicello hyalino, brevi, fragili.

Hab. in foliis caulibusque Impatientis amphoratae, parviflorae in Turkestan, India or. etc.

251. **Puccinia Pritzeliana** P. Henn. F. Australiae occid. I, in Hedw. 1901, p. 95. — Syll. XVI, p. 1119 (nomen). — Maculis rotundatis, fuscis; soris hypophyllis, sparsis, cinnamomeis, pulvinatis, ca. 0, 5-1 mm. diam.; teleutosporis oblongis v. oblonge clavatis, apice obtuse rotundatis, incrassatis v. lateraliter 2-papillatis, interdum suberistatis, 1-septatis, paullo constrictis, flavidis, levibus, 30-50 \times 13-23, stipite hyalino, consistenti, usque ad 150 μ . longo, 7-11 μ . cr., interdum inflato.

Hab. in foliis vivis Tremandrae stelligerae, Perth Australiae occid.

252. **Puccinia rubricans** Holway, Journ. of Mycol. 1904, p. 165. — 1181 Maculis purpureis, plerumque circularibus, 1-6 mm. diam.; soris amphigenis, saepius hypophyllis, solitariis, sparsis v. circinantibus in maculis latoribus; uredosoris late brunneis; uredosporis pallide brunneis, globosis, rarius ovoideis, 36-44 \times 32-46 fortiter echinulatis, spinulis 3-4 μ . long.; tunica 4-6 μ . crassa; teleutosoris uredosoros

subsequentibus, nigris; teleutosporis ellipsoideis, ferrugineis, fortiter verrucosis, 60-80 \times 40-44, apice breviter acutato v. rotundato, leviter incrassato; pedicello hyalino, usque 80 μ . longo.

Hab. in foliis Heteropteridis Portillanæ, Guadalajara, Mexico.

253. **Puccinia Echinopteridis** Holway Journ. of Mycol. 1904, p. 164. 1182

— Uredosoris amphigenis et cauliculis, brunneis, circumstantibus, globoso-oblongis, subinde confluentibus; maculis pallide flavis; uredosporis late brunneis, globoso-ovoideis, grosse echinulatis, 26-33 \times 22-26; teleutosoris amphigenis, nigris, pulverulentis, minutis, dein confluentibus; teleutosporis globosis v. late ellipsoideis, non constrictis, subæqualiter tunicatis, fortiter verrucoso-reticulatis, atro-brunneis, 30-40 \times 22-37; stipite varie inserto, sæpe lateraliter et prope sporam inflato eamque subæquante.

Hab. in foliis Echinopteridis Lappulæ, Guadalajara et Puebla, Mexico. — Proxime affinis *Puccinia insueta*, a qua differt uredosporis omnino diversis et teleutosporis profundius reticulatis.

254. **Puccinia Ribis-japonici** P. Henn. Einige neue japan. Ured. III, 1183

in Hedw. 1902, p. 19. — Maculis rotundatis subvesiculosis, fuscis; soris teleutosporiferis hypophyllis, gregarie pulvinatis, atrofuscis, ca. 1-2 mm. diam.; teleutosporis clavatis vel oblonge fusoides, apice incrassatis obtuse apiculatis, 1-septatis, paullo constrictis, 25-40 \times 10-13, pallide brunneis; stipite persistente, flavidulo, 20-40 \times 3,5-4,5.

Hab. in foliis Ribis japonici, Jyo Japoniæ.

255. **Puccinia Boroniæ** P. Henn. in Hedw. 1903, p. (73). — Soris ra- 1184

miculis, crasse erumpentibus, longe effusis, pulvinato-tuberculatis, atro-cinnamomeis, duris, usque ad 2 cm. longis, basi epidermide fissa pallida velatis; teleutosporis oblonge ellipsoideis, subclavatis vel subfusoides, apice incrassatis, rotundatis v. obtuse gibbosis, brunneis, levibus, ca. 20-32 \times 15-18; pedicello hyalino-flavidulo usque ad 150 \times 3,5-4.

Hab. in ramulis Boroniæ spinescentis, W. Australia (L. DIELS).

256. **Puccinia præclara** Syd. Mon. Ured. vol. I, fasc. III, p. 452. — 1185

Soris uredosporiferis plerumque hypophyllis, maculis nullis v. minutis obsoletis insidentibus, sparsis, punctiformibus, subpulverulentis, flavo-cinnamomeis; uredosporis globosis, subglobosis v. late ellipsoideis, dense valideque aculeatis, flavo-brunneis, 24-33 \times 22-30,

episporio crassiusculo; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio constrictis, grosse verrucosis, obscure brunneis, septo plerumque verticali, $35-42 \approx 30-38$; pedicello hyalino, persistenti, crasso, usque 50μ . longo.

Hab. in foliis vivis Sapindaceæ ejusdam, prov. Chimbo-razo, Puente de Chimbo Æquatoriæ (LAGERHEIM).

257. **Puccinia Modiolæ** Syd. Mon. Ured. vol. I, fasc. III, p. 478, 1183 tab. XXVIII, fig. 392, Speg. Dec. Myc. Argent. 10. — Soris teleutosporiferis hypophyllis, maculis minutis, rotundatis, 2-3 mm. diam., depressulis, flavidis insidentibus, sparsis v. hinc inde aggregatis, mediocribus, 1-2 mm. diam., rotundatis, compactis, primitus rufis vel flavo-rufis, dein rufo-brunneis; teleutosporis anguste fusoides v. linearibus, utrinque attenuatis, apice incrassatis saepeque inciso-fissis, medio non v. vix constrictis, levibus, flavescens, $54-85 \approx 10-16$; pedicello hyalino persistenti, usque 150μ . longo, crasso.

Hab. in foliis vivis Modiolæ prostratæ in Argentina et Uruguay.

258. **Puccinia exilis** Syd. Mon. Ured. vol. I, fasc. III, pag. 481, 1187 tab. XXIX, fig. 396. — Soris teleutosporiferis hypophyllis, maculis minutis orbicularibus ca. 2 mm. diam., arescendo albidis insidentibus, solitariis in quaque macula, mediocribus 1-3 mm. diam., rotundatis v. subrotundatis, compactis, flavo-brunneis; teleutosporis oblongis v. oblongo-clavulatis, apice rotundatis v. leniter acutiusculis, non incrassatis, medio leniter constrictis, basi rotundatis v. attenuatis, levibus, subhyalinis, $27-40 \approx 10-14$, episporio tenuissimo, pedicello hyalino, tenui, subpersistenti, sporam æquante vel ea longiore.

Hab. in foliis vivis Pavoniæ leucanthæ, P. roseæ, in Brasilia (POEPPIG, REGNELL).

259. **Puccinia Anodæ** Syd. Mon. Ured. vol. I, fasc. III, pag. 475, 1183 tab. XXVIII, fig. 391. — Soris teleutosporiferis hypophyllis, maculis minutis rotundatis, flavidis v. brunneolis, ca. 2-3 mm. diam. insidentibus, minutis, sparsis vel sæpe in circulos usque 3 mm. latos dispositis et omnino confluentibus, compactis, obscure brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis non vel vix incrassatis, medio non vel lenissime constrictis, basi plerumque rotundatis, levibus, flavis, $27-35 \approx 16-24$; pedicello hyalino, crassiusculo, persistenti, usque 90μ . longo.

Hab. in foliis vivis *Anodæ hastatæ*, San Miguel Uspantan Guatemala (HEYDE et LUX).

260. *Puccinia Sieversiae* Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1189

Soris teleutosporiferis amphigenis, sparsis, rotundatis vel ovalibus, epidermide bullata tectis, immersis, pulverulentis, brunneis; teleutosporis ellipticis vel ovato-oblongis, 32-40 \times 20-26, utrinque rotundatis vel interdum inferne conicis, ad septum non vel vix constrictis; episporio rugulosulo, sublevi, cinnamomeo-brunneo 1, 5-2,5 μ . crasso, superne 4-6 μ . crasso, sæpe subhyalino-umbonato; pedicello brevi, sporâ brevior, exili, subhyalino.

Hab. in foliis *Sieversiae* turbinatæ, Fish Lake, in montibus Uintah, Amer. bor.

261. *Puccinia turrita* Arth. in Bull. Torr. Bot. Club XXIX, 1902, 1190

p. 230, Syd. Mon. Ured. vol. I, fasc. III, p. 504. — Soris teleutosporiferis amphigenis, sparsis, rotundatis, minutis, 0,5-1 mm. diam., mox nudis, subpulverulentis, obscure brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis v. attenuatis, incrassatis, usque 6 μ . medio leniter constrictis, basi rotundatis rarius leniter attenuatis, verrucosis, flavo-brunneis, 27-40 \times 16-22, rarius usque 24 μ . latis; pedicello hyalino, tenui, brevi, caduco.

Hab. in foliis vivis *Saxifragæ bronchialis*, Maniton, Colorado Amer. bor. (HOLWAY).

262. *Puccinia Parnassiae* Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1191

— Soris teleutosporiferis amphigenis, interdum gregariis, pustuliformibus, coalescentibus, immersis, pulverulentis, intense brunneis; teleutosporis ellipticis, 30-37 \times 16-20, utrinque rotundatis vel obtusis; episporio 1-2 μ . crasso, brunneolo, levi vel superne obscure punctato sæpe apice hyalino-umbonato; pedicello hyalino, sporâ brevior, deciduo.

Hab. in foliis *Parnassiae* fimbriatæ, Bauff, Alberta Americæ bor. (E. W. D. HOLWAY).

263. *Puccinia Laurentiana* Trelease, Harrim. Alaska Exped. Crypt. 1192

p. 38. — Soris hypophyllis, castaneis, rotundis, circ. 1 mm. diam.; teleutosporis brunneis, subconstrictis, 50 \times 20, vertice incrassatis et pallide apiculatis; tunica crassiuscula nec striata nec verrucosa; pedicellis hyalinis, brevibus, fragilibus.

Hab. in foliis *Saxifragæ neglectæ* var. *stoloniferæ*, St. Lawrence Island, Behring Sea, Alaska (MACOUN). — Affinis *Pucc. Saxifragæ-ciliatæ*.

264. *Puccinia aspera* Diet. et Holw. in Bull. Torr. Bot. Club XXIX, 1193

1902, p. 230, Syd. Mon. Ured. vol. I, fasc. III, p. 503. — Soris teleutosporiferis amphigenis vel petiolicolis, magnis, 1,5-4 mm. diam., rotundatis, pulverulentis, nudis, castaneo-brunneis; teleutosporis ellipsoideis vel oblongis, apice rotundatis, non incrassatis, medio plerumque leniter constrictis, basi rotundatis, rarius leniter attenuatis, verrucis majusculis planis irregularibus obsitis, flavo-brunneis, 30-42 × 16-24; pedicello hyalino, brevi, caduco.

Hab. in foliis vivis Saxifragæ Mertensianæ, Mt. Paddo, in Washington Americæ bor. (W. N. Saksdorp).

265. **Puccinia Lindrothii** Syd. in Acta pro Fauna et Fl. fenn. XXII, 1194
n. 1, p. 62 (1902), Syd. Mon. Ured. vol. I, fasc. III. pag. 418,
tab. XXV, f. 348. — Æcidii hypophyllis v. petiolicolis v. caulicolis, maculis indeterminatis pallidis insidentibus, in foliis greges rotundatos vel irregulares, usque 5 mm. diam. formantibus, in petiolis caulibusque in greges elongatos et sæpe longe confluentes confertim dispositis, cupulatis, albidis, margine irregulariter lacerato; æcidiosporis globosis, subglobosis, angulatis v. ovatis, tenuissime verruculosus, flavidis, 22-32 × 19-25; soris teleutosporiferis amphigenis v. caulicolis, plerumque hypophyllis, sine maculis, sparsis v. hinc inde subgregariis, rotundatis, 0,5-1 mm. diam., epidermide lacerata cinctis, in caule oblongis et diutius tectis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, verruculosus, intense castaneo-brunneis, 30-42 × 18-26, episporio 3-4 µ. cr.; pedicello hyalino, tenui, deciduo.

Hab. in foliis, petiolis caulibusque vivis Velææ (Arracaciæ) Hartwegii, in California (BLASDALE).

266. **Puccinia Alyssi** Lindr. Acta Soc. Fauna et Fl. fennica 1902, 1195
XXII, n. 3, p. 11, *P. Alyssi* Syd. in Ann. Mycol. 1903, p. 18. — Soris teleutosporiferis hypophyllis v. sæpe caulicolis, in folio sparsis, rotundatis minoribusque, in caule majusculis crassis sæpe confluentibus et tunc confluendo usque 1 cm. long., epidermide fissa cinctis v. semivelatis, pulvinatis, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice vix v. leniter incrassatis, usque 8 µ., medio non v. parum constrictis, levibus, castaneo-brunneis, 38-52 × 22-32, episporio 5-6 µ. cr.; pedicello subhyalino, persistenti, usque 60 µ. longo; mesosporis interdum immixtis, subglobosis v. ovatis, 30-35 × 23-27.

Hab. in caulibus et petiolis Alyssi spinosi in Hispania et Alyssi halimifolii pr. Porto Maurizio Italiæ bor.

267. *Puccinia Cochleariæ* Lindr. Acta Soc. Fauna et Fl. fennica 1196
1902, XXII, n. 3, p. 10. — Teleutosoris minutis rotundatis vel ellipticis, subsparsis, diu epidermide cinctis, nigricantibus, denique nudis, pulverulentis; teleutosporis vulgo anguste ellipsoideis, oblongis, sæpe subirregularibus, medio distincte constrictis, $32-40 \times 13-18$; membrana flavido-brunneola, longitrorsum striolata, supra porum germ. subhyalino-papillatis; pedicellis $40-60 \times 4-5$, tenuibus, labilibus.

Hab. in foliis Cochleariæ fenestratæ, groenlandicæ, pyrenaicæ in Grœnlandia et Gallia.

268. *Puccinia Eutremæ* Lindr. Acta Soc. Fauna et Fl. fenn. 1197
XXII, n. 3, p. 9. — Soris foliicolis, petiolicolis et cauliculis, suborbiculari-oblongis, $0,5-1,5$ mm. diam., epidermide vesiculosa grisea tectis, demum nudatis, pulvereis, subnigris; teleutosporis oblongis, utrinque sæpius rotundatis, medio fortiter constrictis, $30-38 \times 12-14$; membrana tenui, intense brunnea, æquicrassa, tenuiter crebre striolata; poro germin. cellula superioris laterali, inferioris prope septum sito; pedicellis $40-60 \times 4-5$, tenuibus, labilibus.

Hab. in foliis Eutremæ Edwardsii in Lapponia (BROTHERUS). — Adsunt interdum mesosporæ $26-29 \times 11-13$.

269. *Puccinia Litseæ* (Pat.) Diet. et Henn. Einige neue japan. Ured. 1198
III, in Hedw. 1902, p. (19), *Æcidium Litseæ* Pat. Champ. Asiat. p. 3: cfr. Syll. XI, pag. 221. — Maculis vesiculoso-subcupulatis, pallide cinctis; tuberculis hypophyllis oppositis, hemisphærico-pulvinatis, lignosis, botryose verrucosis, ca. $1,5-3$ mm. diam.; pseudoperidiis immersis, tectis dein erumpentibus, cupulatis, flavidis e cellulis tabulari-polyhedricis flavido-hyalinis, $20-35 \mu$. compositis, intus cellulis sterilibus oblongis, subquadrangulis, hyalinis, verrucosis $40-70 \times 15-25$, impletis, æcidiosporis haud conspicuis; soris teleutosporiferis deinde ad basim in loculis æcidiorum generatis; teleutosporis oblonge ellipsoideis v. subfusoides, utrinque attenuatis, apice paullo incrassatis, obtusiusculis, $40-50 \times 20-28$, medio 1-septatis, haud vel paullo constrictis, mox in cellulis subconoideis dehiscentibus, episporio castaneo, granuloso-verrucoso; pedicello plus minus elongato, fuscidulo, fragili.

Hab. in foliis Litseæ glaucæ, Tosa Japoniæ.

270. *Puccinia texana* Holway et Long in Bull. Torr. Bot. Club 1902, 1199
p. 113, fig. 3, Syd. Mon. Ured. vol. I, fasc. III, p. 325. — Soris teleutosporiferis hypophyllis, maculis minutis irregularibus, brunneis vel atro-purpureis insidentibus, sparsis v. paucis aggregatis,

minutis, ca. 0,5 mm. diam., epidermide lacerata cinctis, subpulverulentis, atro-brunneis; uredosporis immixtis, globosis, subglobosis v. ellipsoideis, minute echinulatis, flavo-brunneolis, 18-23 μ . diam. v. 22-30 \times 15-24; teleutosporis ellipsoideis, utrinque rotundatis, apice non vel vix, ca. 4 μ . cr., medio constrictis, levibus, castaneo-brunneis, 27-38 \times 18-27; pedicello hyalino, crassiusculo, persistenti, usque 50 μ . longo, non inflato.

Hab. in foliis vivis Berberidis trifoliolatæ, Austin in Texas Americæ bor. (LONG).

271. *Puccinia Berberidis-trifoliæ* Diet. et Holw. in Bot. Gaz. XXXI, 1200 1901, p. 328, Syd. Mon. Ured. vol. I, fasc. III, p. 524, tab. XXXI, f. 423. — Soris teleutosporiferis hypophyllis, maculis brunneis v. atro-purpureis insidentibus, sparsis vel aggregatis, confluentibusque, mediocribus, 1-3 mm. diam., in petiolis linearibus, pulvinatis, atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. sæpius conico-attenuatis, varie incrassatis, 4-8 μ . v. etiam usque 16 μ ., medio constrictis, basi plerumque rotundatis, levibus, dilute brunneis, 26-50 \times 14-24; pedicello brunneolo, persistenti, usque 75 μ . longo, non inflato; mesosporis interdum intermixtis.

Hab. in foliis vivis Berberidis trifoliæ, Rio Hondo, Mexico (HOLWAY).

272. *Puccinia atragenicola* (Bubák) Syd. Mon. Ured. vol. I, fasc. III, 1201 p. 538, *P. De-Baryana* Thuem. f. *atragenicola* Bubák. *P. Atragenes* Fuck. (1869) nec Hausm. (1861). — Soris teleutosporiferis hypophyllis, minoribus interdum paucis, etiam epiphyllis, maculis orbicularibus, 2-5 mm. diam. flavis v. brunneis insidentibus, subinde petiolicolis, magnis, sparsis vel confluentibus, 1-5 mm. longis, compactis, duris, tectis, atris; teleutosporis clavatis, apice rotundatis, truncatis vel acutiusculis, valde incrassatis, usque 12 μ ., medio leniter constrictis, deorsum attenuatis, flavo-brunneis, apice obscurioribus, levibus, 44-82 \times 15-24; pedicello brunneolo, brevi, crasso.

Hab. in foliis petiolisque vivis *Atragenes alpinæ* in Austria, Helvetia, Italia.

273. *Puccinia clavata* Syd. Mon. Ured. vol. I, fasc. III, pag. 545, 1202 tab. XXXI, fig. 428. — Soris teleutosporiferis plerumque hypophyllis, maculis minutis orbicularibus ca. 2 mm. diam., brunneis insidentibus, sparsis, minutis, epidermide diutius tectis, dein ea fissa cinctis, compactis, atris; teleutosporis clavatis, apice rotundatis, truncatis v. leniter acutiusculis, valde incrassatis, usque 10 μ .,

medio constrictis, levibus, pallide brunneis, apice obscure brunneis, 42-62 μ . longis, loculo superiore 14-22 μ . lato, inferiore 11-16 μ . lato; pedicello brevi, brunneolo.

Hab. in foliis vivis Clematidis hexapetalæ, in Nova Zelandia (BASTIAN).

274. **Puccinia Castagnei** Schröt. in Cohn Beiträge III, p. 62 (1879), 1203

Syd. Mon. Ured. vol. I, fasc. III, p. 551. — Soris teleutosporiferis amphigenis, maculis vix distinctis, sparsis, raro paucis aggregatis, minutis, diutius epidermide tectis, rotundatis subpulverulentis, ferrugineis; uredosporis immixtis subglobosis, sæpius ellipsoideis vel plerumque piriformibus, primo flavis, dein brunneolis verrucosis, apice valde (usque 8 μ .) incrassatis, 27-33 \times 21-25; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, subinde truncatulis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis, sublevibus, brunneis, 28-40 \times 16-22; pedicello hyalino, brevissimo.

Hab. in foliis vivis Thalictri angustifolii, Istres Gallia (CASTAGNE).

275. **Puccinia Trautvetteriæ** Syd. et Holw. in Syd. Mon. Ured. vol. I, 1204

fasc. III, p. 552, tab. XXXII, fig. 432. — Soris teleutosporiferis hypophyllis, maculis orbicularibus vel suborbicularibus 2-3 mm. latis, griseo-brunneis insidentibus, sparsis, mediocribus, 1-2 mm. diam., rotundatis v. subrotundatis, compactis, atris; teleutosporis clavatis, apice rotundatis, truncatis v. rarius leniter acutiusculis, parum incrassatis, usque 3 μ ., medio non v. vix constrictis, basi attenuatis, levibus, dilute brunneolis, 40-56 \times 11-16; pedicello brevi, brunneolo.

Hab. in foliis vivis Trautvetteriæ in monte Tacoma, Washington, Amer. bor. (HOLWAY).

276. **Puccinia melasmioides** Tranzsch. in Syd. Mon. Ured. vol. I, 1205

fasc. III, p. 538. — Soris teleutosporiferis hypophyllis v. petiolicollis, tandem etiam epiphyllis, maculis indeterminatis flavescens, insidentibus, in foliis in acervulum rotundatum subrotundatum v. rarius irregularem usque 1 cm. diam. plerumque omnino confluentibus, in petiolis acervos irregulares elongatos sæpe formantibus; teleutosporis lineari-clavatis, apice truncatis vel acutiusculis, incrassatis, 2-6 μ ., medio non vel parum constrictis, basi in pedicellum attenuatis, levibus, dilute brunneis, apice obscurioribus 45-75 \times 12-16; pedicello brevi, persistenti, brunneolo, usque 15 μ . longo; paraphysibus numerosis, brunneis.

Hab. in foliis petiolisque vivis *Aquilegiæ vulgaris* var., in jugo transalaico, ad fines Sinæ, ad fluv. Irkeschtam Turkestanie (W. TRANZSCHEL). — Var. *Aquilegiæ viridifloræ* Karst. Fung. nov. Loennb. 1904, p. 6 (Finska Vetensk. Soc.): teleutosporis in soros epiphyllis, erumpentibus, plano-convexis, nudis, confluentes, raro sparsos atrofuscos congestis, elongato-clavatis, medio haud v. paululum constrictis, flavescentibus, 40-60 \times 8-12. In foliis *Aquilegiæ viridifloræ* in regione Baicalensi, Listvinitchnoje Septembri 1902 (O. A. F. LÖNNBOHM).

277. **Puccinia Lycoctoni** Fuk. Symb. Nachtr. III, p. 11 (1875), Syd. 1206 Mon. Ured. vol. I, fasc. III, p. 527, *Æcidium Lycoctoni* Kalchbr. in herb., *Uredo Lycoctoni* Kalchbr. in herb. — *Æcidii* hypophyllis, maculis orbicularibus brunneis insidentibus, in greges rotundatos v. ellipticos dense confertis, sæpe etiam petiolicolis, cupulatis, margine denticulato, albido; *æcidiosporis* irregulariter globosis v. ellipsoideis, subtiliter verruculosis, aurantiaco-flavis, 16-24 μ . diam. v. usque 26 μ . longis, 14-20 μ . latis; soris teleutosporiferis hypophyllis, raro amphigenis, solitariis v. per paucos aggregatis, magnis, usque 1,5 cm. diam., in petiolis caulibusque elongatis variæque magnitudinis, plerumque, diu epidermide plumbea dein irregulariter fissa tectis, pulverulentis, atro-brunneis; teleutosporis oblongis v. ellipsoideis apice papilla late conica v. hemisphærica dilutiore v. subhyalina donatis, medio non v. parum constrictis, basi rotundatis v. vix attenuatis, flavis v. flavo-brunneis, levibus 25-45 \times 20-28; pedicello hyalino, brevi, caduco.

Hab. in foliis, petiolis caulibusque vivis *Aconiti Lycoctoni* in Germania, Austria, Hungaria, Italia, Helvetia, Norvegia. — A *P. Trollii* Karst., quacum conjungitur a cl. Winter et in Sylloge VII, p. 670, teste Ed. Fischer, certe distincta.

278. **Puccinia gemella** Diet. et Holw. in Syd. Mon. Ured. vol. I, 1207 fasc. III, p. 541. — Soris teleutosporiferis amphigenis v. petiolicolis, in epiphyllis sæpe magis evolutis, maculis nullis vel vix distinctis insidentibus, irregulariter sparsis v. hinc inde confluentibus, mediocribus, 750-1500 μ . diam., pulverulentis, atro-brunneis; teleutosporis fusosideo-oblongis, apice modo rotundatis, modo attenuatis, papilla valida conica dilutiore instructis, medio non constrictis, basi sæpius attenuatis, levibus, brunneis, 36-50 \times 22-26; pedicello hyalino, brevi.

Hab. in foliis *Calthæ leptosepalæ*, in monte Tacoma, Washington Amer. bor. (HOLWAY).

279. *Puccinia cohæsa* Long in Bull. Torr. Bot. Club. 1902, p. 112, 1208

fig. 2, Syd. Mon. Ured. vol. I, fasc. III, p. 529. — *Æcidii*s hypophyllis, maculis indeterminatis flavescentibus insidentibus, æque v. irregulariter per folium distributis, cupulatis, margine in lobos quatuor recurvatos plerumque fissis; *æcidiosporis* polygoniis, subtiliter verruculosi, flavescentibus, 16-22 μ . diam.; soris uredosporiferis hypophyllis, maculis flavidis insidentibus, sparsis, rotundatis, 0,8-1 mm. diam., pulverulentis, cinnamomeis; uredosporis plerumque ellipsoideis vel oblongis, apice incrassatis, usque 6 μ ., echinulate-verruculosi, flavidis, 25-35 \times 14-22, paraphysibus usque 70 μ . long. capitato-incrassatis, usque 14 μ . immixtis; soris teleutosporiferis plerumque hypophyllis, sparsis v. annulatim dispositis v. in greges usque 3 mm. diam. confluentibus, sæpe intra *æcidia* ortis, pulverulentis, epidermide diutius tectis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio valde constrictis, verrucis magnis dense obsitis, castaneo-brunneis, 30-40 \times 18-24; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis *Anemones carolinianæ*, Austin, Texas, Amer. bor. (Long).

280. *Puccinia suffusca* Holw. Journ. of Mycol. 1902, p. 171, Syd. 1209

Mon. Ured. p. 532, *P. Pulsatillæ* Rostr. nec Kalchbr. — A *P. fusca* differt teleutosporis sæpe 1-cellularibus, saturatius coloratis et inæqualiter longiusque tuberculatis.

Hab. in foliis petiolisque vivis *Pulsatillæ pratensis*, *P. patentis*, *P. vulgaris*, *P. grandis*, *P. hirsutissimæ* in Europa et America. — De Pucciniis anemonicolis cfr. Bubák in Hedw. 1903, p. (28).

281. *Puccinia gigantispora* Bubák in Sitzungster. Königl. Ges. Wis. 1210

sensch. Prag 1901, n. II, p. 9, fig. 51-61, Syd. Mon. Ured. vol. I, fasc. III, p. 537. — *Æcidii*s hypophyllis, maculis rotundatis vel subrotundatis purpurascentibus, 2-4 mm. diam. insidentibus, gregariis, subinde soris teleutosporiferis circumdati, breviter cylindraceis, margine reflexo, inciso, albido; *æcidiosporis* polyhedricis, verruculosi, flavidis, 24-29 \times 20-22; soris teleutosporiferis amphigenis, maculis purpurascentibus insidentibus, sparsis v. circa *æcidia* aggregatis confluentibusque, minutis v. majoribus, 1-3 mm. diam., rotundatis v. irregularibus, compactis, atris; teleutosporis clavatis v. linearibus, apice rotundatis, truncatis vel acutiusculis, valde incrassatis, usque 10 μ ., medio non vel vix constrictis, deorsum attenuatis, levibus, pallide brunneis, sursum, præcipue ad apicem,

obscure brunneis, 50-104 μ . longis, loculo superiore 10-22 μ ., inferiore 7-15 μ . lato; pedicello hyalino, brevi; paraphysibus paucis, flavo-brunneis.

Hab. in foliis vivis *Anemones* patentis var. *Nuttallianæ* pr. Livingston in Montana (SEYMOUR), *A. multifidæ* in Wyoming (MERRILL et WILCOX) et in Canada (HOLWAY).

282. *Puccinia Pulsatillæ* Kalchbr. in Mathem. es termessett. Közle- 1211
menyek III, pag. 307 (1865), Syd. Mon. Ured. vol. I, fasc. III, pag. 536. — Soris teleutosporiferis amphigenis, maculis plus minusve bullatis rufo-vel purpureo-cintis insidentibus, magnis, usque $\frac{1}{2}$ cm. diam., duris, crassis, compactis, tectis, atris; teleutosporis oblongo-clavatis, clavatis v. linearibus, apice rotundatis, truncatis v. leniter acutiusculis, valde incrassatis (6-12 μ .), medio leniter constrictis, basi attenuatis, levibus, dilute brunneis, apice obscure brunneis, 42-92 \approx 12-24; pedicello brevi, brunneo; paraphysibus brunneis, tremellosis intermixtis.

Hab. in foliis petiolisque vivis *Anemones* (*Pulsatillæ*) alpinae, montanae, nigricantis, patentis, var. *Nuttallianæ*, pratensis, *Pulsatillæ*, silvestris, sulphureae in Germania, Austria, Hungaria, Helvetia, Italia, America bor.

283. *Puccinia relecta* Syd. in Ann. Mycol. 1903, p. 34, et Mon. Ured. 1212
vol. I, fasc. III, p. 535. — Soris teleutosporiferis amphigenis v. petiolicolis, maculis flavidis usque 5 mm. latis insidentibus, minutis, sed in greges rotundatos usque 4 mm. latos, dense dispositis, epidermide lacerata cinctis, pulverulentis, obscure brunneis vel cinnamomeo-brunneis; teleutosporis ellipsoideis, apice rotundatis, non incrassatis, medio leniter constrictis, basi saepius rotundatis, dense et distincte verruculosi, brunneis, 32-40 \approx 21-27; pedicello hyalino, brevi, caduco.

Hab. in foliis petiolisque vivis *Anemones narcissifloræ*, Buffalo Pass, Park Range, Colorado Americae bor. (C. L. SHEAR).

284. *Puccinia leptosperma* Syd. Mon. Ured. vol. I, fasc. III, p. 557, 1213
tab. XXXII, fig. 434. — Soris teleutosporiferis hypophyllis, maculis irregularibus indeterminatis flavis vel flavo-brunneolis insidentibus, sparsis v. paucis in greges minutos aggregatis, minutis, compactis, flavo-brunneis v. brunneis; teleutosporis oblongis vel clavatis, apice rotundatis v. leniter acutiusculis, non v. rarius vix incrassatis, ca. 5 μ ., medio constrictis, basi plerumque attenuatis, levibus, subhyalinis, 27-45 \approx 10-15, episporio tenuissimo; pedicello hyalino tenui, ca. 60 μ . longo.

Hab. in foliis *Drymaria cordatæ*, Kamerun (PREUSS) et in ins. Madagascar (HILDEBRANDT).

285. *Puccinia modica* Holway in Journ. of Mycol. 1904, p. 164. — 1214

Soris amphigenis, rotundis v. elongatis, $\frac{1}{2}$ 1 mm. diam.; uredosoris brunneis; uredosporis globosis, crebre plano-tuberculatis, flavido-brunneis, 20-24 μ . diam.; poris germinativis 4-5 sparsis; teleutosoris nigris, pulverulentis; teleutosporis late ellipsoideis, brunneis, levibus, 36-40 \times 24-32, crasse tunicatis, apice rotundato 4-8 μ . cr.; pedicellis persistentibus, hyalinis, usque 120 μ . long.; mesosporis intermixtis.

Hab. in foliis *Arenaria Peyritschii*, A. reptantis etc. pluribus locis in Mexico.

286. *Puccinia Galeniae* Diet. in Syd. Mon. Ured. vol. I, fasc. III, 1215

p. 562. — Soris uredosporiferis amphigenis, sparsis, minutis vel mediocribus, obscure brunneis; uredosporis globosis, subglobosis vel sæpius ellipsoideis, breviter echinulatis, flavo-fuscis, 18-29 \times 18-22, episporio crasso, poris germinationis quatuor instructis; teleutosporis immixtis, ovatis, apice rotundatis, modice incrassatis, medio paullo constrictis, levibus, brunneis, ca. 30 \times 22; pedicello sporam subæquante.

Hab. in foliis vivis *Galeniae africanæ*, *sarcophyllæ*, Swakopmund Africae austr. (STAPP, C. KLUGKIST).

287. *Puccinia Stuckerti* Speg Myc. Arg. ser. I, in An. Soc. Cient. 1216

Arg. 1899, p. 266. — Maculis plane nullis; soris quandoque minutis 0,5-1 mm. diam., quandoque ob confluentiam majusculis 2-5 mm. diam., lenticulari-prominulis, amphigenis e pulverulento compactiusculis, atris; teleutosporis ellipticis vel subovatis, utrinque obtusissimis, levibus, 34 \times 25-26, episporio crassiusculo ubique æquali vestitis, medio 1-septatis sed non constrictis, oculis sæpius 1-guttulatis, intense ferrugineis, pedicello mox fluxili crassiusculo 30-40 \times 5-7 hyalino fultis.

Hab. in foliis vivis *Gomphrenæ*, prope Cordoba Argentinae.

288. *Puccinia Dielsiana* P. Henn. F. Australiæ occid. I, in Hedw. 1217

1901, p. 95, Sacc. — Syll. XVI, p. 1119 (nomen). — Soris cauliculis, epidermide erumpentibus, oblonge pulvinatis, firmis, atris, ca. 5 mm. longis; teleutosporis ellipsoideis v. ellipsoideo-ovoideis, apice rotundato-obtusis, paullo incrassatis, 1-septatis, minus constrictis 35-42 \times 23-25, episporio castaneo, levi; pedicello subhyalino 60-80 \times 5-6, consistenti.

Hab. in caulibus *Chenopodiaceæ*, Perth Australiæ occid.

289. *Puccinia pachyplœa* Syd. Mon. Ured. vol. I, fasc. III, p. 581, 1218
tab. XXXII, fig. 445. — Soris teleutosporiferis amphigenis vel
petiolicolis, maculis nullis vel indistinctis, sparsis, rotundatis, in
petiolis oblongis, mox nudis, usque 1 mm. diam., atris; teleuto-
sporidis ellipsoideis v. subgloboso-ellipsoideis, utrinque late rotun-
datis, apice non incrassatis, medio non vel lenissime constrictis,
grosse verrucosis, amœne obscureque castaneo-brunneis, 35-46 ×
24-32, episporio crassissimo 4,5-5,5 μ . lato; pedicello brevi, hya-
lino; mesosporis globosis vel subglobosis, verrucosis, obscure ca-
staneo-brunneis, ca. 27 μ . diam.

Hab. in foliis petiolisque vivis Rumicis tuberosi, pr. Ri-
wandous Kurdistanæ assyriacæ (BORNMÜLLER).

290. *Puccinia Aristolochiæ* (D. C.) Wint. — Syll. VII, p. 614 — var. 1219
crassior Syd. Mon. Ured. vol. I, fasc. III, p. 583. — Soris teleu-
tosporiferis hypophyllis, solitariis, paucis (1-8) in quoque folio,
multo majoribus, 2-5 mm. diam., subcompactis, epidermide tectis
vel, ea stellatim v. irregulärer fissa, semivelatis, rotundatis, ob-
scure atro-brunneis; teleutosporis ut in typo.

Hab. in foliis Aristolochiæ maurorum, inter Damascum
et Beirut, Syriæ.

291. *Puccinia achroa* Syd. Mon. Ured. vol. I, fasc. III, pag. 438, 1220
tab. XXVI, fig. 365. — Soris teleutosporiferis hypophyllis, ma-
culis epiphyllis minutissimis sæpe ægre conspicuis orbicularibus
insidentibus, sparsis, rotundatis, minutis vel mediocribus, 0,8-1,5
mm. diam., compactis, primitus cinnamomeis, dein atris; teleu-
tosporis oblongis v. oblongo-fusoideis, apice rotundatis v. obtuse
attenuatis, incrassatis usque 8 μ ., medio leniter constrictis, basi
sæpius attenuatis, levibus, hyalino-flavescentibus, 50-58 × 16-24;
pedicello hyalino, crasso, persistenti, usque 70 μ . longo; meso-
sporidis interdum paucis immixtis.

Hab. in foliis vivis Elæagni macrophylli, Kamakura
Japaniæ (S. HORT).

292. *Puccinia fusispora* Syd. Mon. Ured. vol. I, fasc. III, p. 590, 1221
tab. XXXIII, fig. 448. — Soris teleutosporiferis hypophyllis,
maculis minutis 1 mm. diam., brunneolis insidentibus, sparsis, mi-
nutis, solitariis, nunquam confluentibus, rotundatis, compactis,
obscure brunneis; teleutosporis fusoideis, apice acutiusculis, incras-
satis, 5-8 μ ., medio leniter constrictis, basi attenuatis, levibus, pal-
lide flavo-brunneis, 40-55 × 8-11; pedicello hyalino, persistenti,
sporam æquante.

Hab. in foliis vivis *Urticæ angustifoliæ* in prov. Mukdenensi Mandschuriæ (KOMAROW).

293. **Puccinia Satyrii** Syd. Monogr. Ured. vol. I (1903), pag. 594, 1222 tab. XXXIII, f. 453. — Soris teleutosporiferis hypophyllis, sine maculis, plerumque per totum folium æque gregariis, minutis, punctiformibus, rotundatis, compactiusculis, luteo-fulvis; uredosporis immixtis globosis v. subglobosis, echinulatis, flavescentibus, 16-24 μ . diam; teleutosporis oblongis vel fusiformibus, utrinque attenuatis, apice valde incrassatis, usque 11 μ ., medio non vel vix constrictis, levibus, dilute flavidis, 32-52 \times 13-19; pedicello hyalino, persistenti, sporam subæquante.

Hab. in foliis languescentibus *Satyrii carnei*, prope False Bay Africae austr. (MAC OWAN).

294. **Puccinia Megatherium** Syd. Monogr. Ured. I (1903), pag. 624, 1223 tab. XXXV, fig. 475. — Soris teleutosporiferis amphigenis, sine maculis, minutis vel mediocribus, oblongis vel elongatis confluentibusque, pulverulentis, epidermide fissa cinctis, cinnamomeis; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice non incrassatis, medio non constrictis, levibus, 40-72 \times 40-68, episporio usque 20 μ . crasso; pedicello hyalino, tenui, brevissimo vel subnullo.

Hab. in foliis vivis *Gageæ reticulatæ* in Caucaso.

295. **Puccinia Allii-japonici** Diet. in Bot. Jahrb. 1902, p. 47. — Soris 1224 oblongis, epidermide primo tectis, deinde ea fissa cinctis, castaneis; uredosporis obovatis vel ellipsoideis, 30-34 \times 23-26, episporio hyalino, verruculoso, poris numerosis instructo, vestitis; teleutosporis forma valde varia, oblongis v. cuneatis, ad septum plus minusve profunde constrictis, cellula superiore plerumque rotundata, inferiore cuneata vel oblonga, episporio levi, brunneo, apice haud incrassato vestitis, 35-62 \times 18-27; pedicello brevi, caduco instructis.

Hab. in foliis et caulibus *Allii japonici* in prov. Kosuké Japoniæ (KUSANO).

296. **Puccinia Moreniana** Dudley et Thomp. in Journ. of Mycol. 1904, 1225 p. 53. — Soris teleutosporiferis hypophyllis, sparsis, pustulatis, rotundato-oblongis, 1-3 \times 1-12 mm., epidermide velatis, dein erumpentibus, pulverulentis, castaneo-brunneis; teleutosporis forma magnitudineque difformibus, superne rotundatis v. oblique conicis, inferne subrotundis vel conicis, ad septum paullo constrictis, 16-21 \times 30-40, medio 19 \times 35; pedicello ruguloso, conico, fragili, 30-60 μ . longo.

Hab. in foliis Brodiææ capitatæ, Sierra Morena, San Matteo County Californiæ (THOMPSON).

297. **Puccinia grumosa** Syd. et Holw. in Syd. Mon. Ured. I (1903), 1226 p. 641, tab. XXXV, fig. 479. — *Æcidii*s plerumque hypophyllis, maculis pallidis irregularibus sæpe obsoletis insidentibus, plerumque paucis in greges irregulares dispositis, subinde solitariis, cupulatis, margine albido, inciso; *æcidiosporis* globosis, subglobosis v. angulatis, verruculosi, hyalino-flavescentibus, 19-27 μ . diam.; *soris* uredosporiferis amphigenis, sine maculis, sparsis, rotundatis v. oblongis, minutis, epidermide diutius tectis, dein ea medio fissa, cinctis, dilute brunneis; uredosporis globosis vel subglobosis, subtilissime verruculosi, brunneoli, 20-30 μ . diam., episporio tenui; *soris* teleutosporiferis amphigenis, maculis nullis vel vix distinctis insidentibus, sparsis, minutis, rotundatis v. oblongis, ca. 0,5 mm. diam., epidermide cinerea, diutius tectis, dein, ea medio fissa, cinctis vel semitectis, pulverulentis, atris; teleutosporis ellipsoideo-oblongis v. ovato-oblongis vel subinde subclavatis, apice rotundatis, rarius leniter truncatis, non incrassatis, medio valde constrictis, basi plerumque rotundatis, rarius attenuatis, subtiliter punctato-verruculosi, intus grumosi, castaneo-brunnei, 33-48 \approx 20-30; pedicello subhyalino, crassiusculo, fragili, usque 55 μ . longo.

Hab. in foliis *Zygadeni* elegantis, Bauff in Alberta, Canada, Amer. bor. (HOLWAY).

298. **Puccinia melanopsis** Syd. Mon. Ured. (1903) p. 600, tab. XXXIV 1227 fig. 459. — *Soris* teleutosporiferis amphigenis, elongatis, 2-5 mm. longis, 1-2 mm. latis, compactis, nitidis, atris; teleutosporis oblongo-clavatis, apice plerumque acutiusculis, 6-8 μ . incrassatis, medio vix vel leniter constrictis, deorsum attenuatis, levibus, flavo-brunnei, 43-70 \approx 13-16, raro usque 21 μ . latis; pedicello apice leniter flavescente, tenui, persistenti, usque 95 μ . longo; paraphysibus brunnei.

Hab. in foliis vivis *Iridis Sisyrynchii*, in desertis ad Erbil Assyriæ (BORMÜLLER).

299. **Puccinia dehiscens** Syd. Mon. Ured. I (1903) p. 597, tab. XXXIII, 1228 fig. 457. — *Soris* uredosporiferis amphigenis, sparsis vel hinc inde irregulariter aggregatis, minutis, oblongis vel sublinearibus, epidermide diu tectis, tandem, ea medio longitudinaliter fissa, cinctis v. semitectis, flavo-brunnei; uredosporis globosis, subglobosis vel late ellipsoideis, verruculosi, flavo-brunneoli, 19-27 μ . diam.; *soris* teleutosporiferis amphigenis, sparsis vel hinc inde ir-

regulariter aggregatis, oblongis v. sublinearibus, ca. 0,5–1,5 mm. longis, epidermide longitudinaliter v. rimose dehiscente diu tectis v. semivelatis, pulverulento-compactiusculis, atro-brunneis; teleutosporis oblongis v. clavatis, apice rotundatis, truncatis v. longe conico-attenuatis, valde incrassatis, 8–16 μ , medio constrictis, basi attenuatis, levibus, dilute brunneis, 40–65 \times 14–21; pedicello flavido, persistenti, crasso, dimidium sporæ æquante.

Hab. in foliis vivis *Aristeæ* spec. in monte Muizenberg Africae austr. (H. BOLUS).

300. **Puccinia Dieramæ** Syd. Mon. Ured. I (1903), p. 597, tab. XXXIV, 1220 fig. 458. — Soris uredosporiferis amphigenis, sparsis vel hinc inde paucis aggregatis, minutis, oblongis vel oblongo-linearibus, epidermide diu tectis, flavo-ochraceis; uredosporis globosis, subglobosis v. sæpius ellipsoideis, subtiliter echinulato-verruculosis, flavo-brunneis, 24–32 \times 16–25; soris teleutosporiferis amphigenis, sparsis v. hinc inde paucis irregulariter v. subseriatim aggregatis, oblongis vel oblongo-linearibus, 0,5–1 mm. long., epidermide tandem longitudinaliter fissa diu tectis, atro-brunneis vel atris; teleutosporis oblongo-clavatis v. clavatis, apice plerumque conico-angustatis, sæpe oblique attenuatis, levibus, brunneis, 42–72 \times 14–21; pedicello flavo-brunneolo, peristenti, crassiusculo, sporam æquante.

Hab. in foliis vivis *Dieramæ* ensifoliæ in Capite Bonæ Spei Africae austr. (ECKLON et ZEYHER).

301. **Puccinia Asparagi-lucidi** Diet. in Bot. Jahrb. 1903, pag. 625. 1230 — Soris amphigenis et cauliculis, minutis, sparsis; uredosporiferis epidermide castanea diu tectis; uredosporis ellipsoideis, 22–28 \times 19–23, flavo-brunneis, echinulatis; soris teleutosporiferis epidermide tectis, nigris, paraphysibus arcuatis pallidis clausis; teleutosporis fusiformibus plerumque curvatis, apice attenuatis et sæpe in rostrum dilutius protractis, truncatis vel rotundatis, ad septum modice constrictis, basi plerumque attenuatis, episporio levi castaneo, apice incrassato indutis, 43–62 \times 11–16, pedicello mediocri, usque 25 μ . longo suffultis.

Hab. in foliis caullibusque *Asparagi* lucidi, Tokyo Japoniæ (KUSANO).

302. **Puccinia Cooperiæ** Long in Bull. Torr. Bot. Club. 1902, p. 110, 1231 fig. 1, Syd. Mon. Ured. I, 1903, p. 604. — *Æcidii* amphigenis, in greges ca. 3–6 mm. longos et 1–3 mm. latos aggregatis, margine leniter reflexo, lacerato, albido; *æcidiosporis* angulato-globosis, subtilissime verruculosis v. sublevibus, flavidis, 20–30 μ . diam.;

oris uredosporiferis amphigenis, sine maculis, sparsis, rotundatis vel oblongis, 1-3 mm. longis, epidermide demum longitudinaliter fissa tectis, pulverulentis, flavis; uredosporis globosis, subglobosis v. ellipsoideis, echinulato-verruculosis, aureo-flavis, 16-24 μ . diam. vel 24-30 \times 16-24; soris teleutosporiferis amphigenis, sine maculis, rotundatis vel oblongis 0,5-2 mm. longis, epidermide cinerea diu tectis; teleutosporis variabilibus, oblongis, oblongo-clavatis vel cuneatis, apice rotundatis vel truncatis, non incrassatis, medio leniter constrictis, basi rotundatis v. cuneato-attenuatis, striis paucis longitudinalibus percursis, brunneis, 32-46 \times 18-25; pedicello subhyalino, brevi, crasso.

Hab. in foliis vivis *Cooperiæ Drummondii*, pedunculatæ, Austin, Texas, Amer. bor. (LONG).

303. **Puccinia Alstroemeriae** Syd. Monogr. Ured. I (1903), p. 603. — 1232

Soris teleutosporiferis amphigenis, irregularibus, confluentibus magnis, usque 1 cm. longis, epidermide plumbea semper tectis, compactis; uredosporis immixtis globosis vel subglobosis, subtiliter echinulatis, flavidis 21-27 μ . diam.; teleutosporis cuneato-clavatis, apice plerumque truncatis, rarius rotundatis, parum incrassatis, ca. 4 μ . medio leniter constrictis, basi plerumque attenuatis, levibus, brunneis, apice obscurioribus, 38-48 \times 16-24; pedicello brunneo, crassiusculo dimidium sporæ æquante.

Hab. in foliis vivis *Alstroemeriae revolutæ*, Cordillera de St. Fernando, Chile (MEYEN).

304. **Puccinia Hæmodori** P. Henn. F. Australiae occid. I in Hedw. 1233

1901, p. (96). — Syll. XVI, p. 1119 (nomen). — Soris amphigenis, oblonge pulvinatis, erumpentibus, epidermide fissa velatis, atris 1-2 mm. longis; uredosporis subglobosis v. ellipsoideis, castaneis, levibus 18-22 \times 16-19; mesosporis subfusoides v. ovoideis, subclavatis, apice gibboso-apiculatis, subobtusis vel 2-cornutis, brunneis, 20-35 \times 15-18, pedicello ca. 30 \times 5-7 hyalino fuscidulo; teleutosporis oblonge clavatis v. fusoides, apice incrassatis, obtuse rotundatis vel apiculatis, 1-septatis, paullo constrictis, 36-42 \times 18-20, episporio castaneo, levi; pedicello hyalino-fuscidulo ca. 40 \times 5-7.

Hab. in foliis vivis *Hæmodori*, Perth Australiae occid. (DIELS).

305. **Puccinia Cannæ** P. Henn. Fungi S. Paulenses I, in Hedw. 1234

1902, p. 105. — Maculis fuscidulis, minutis; soris uredosporiferis (*Uredo Cannæ* Wint. — Syll. VII, p. 843) amphigenis, plerumque hypophyllis, gregarie sparsis, totam superficiem occupantibus, minutis, rotundatis, 0,3 mm. diam., pallide flavis; uredosporis sub-

globosis, ellipsoideis v. oblonge ovoideis, subhyalinis, $20-35 \approx 16-22$, echinulatis; soris teleutosporiferis amphigenis sparsis, diutius tectis, dein erumpentibus, atro-brunneis, subpulverulentis, $0,3 \mu$. diam.; teleutosporis longe clavatis, apice plus minus incrassatis, obtuse rotundatis, applanatis vel varie apiculatis, flavo-brunneis, medio 1-septatis vix constrictis, $35-60 \approx 13-18$; pedicello cuneato, fusciscente, $10-20 \approx 4-6$.

Hab. in foliis Cannæ spec., in horto botanico, S. Paulo Brasiliæ.

306. **Puccinia citrina** Syd. Mon. Ur. I (1903) p. 634, t. XXXVI, f. 483. 1235

— Soris uredosporiferis amphigenis, maculis nullis v. vix distinctis insidentibus, sæpius dense sparsis, subinde foliorum superficiem æque obtegentibus vel in greges dispositis vel circinatis, minutis, punctiformibus, flavo-brunneis; uredosporis ellipsoideis, remote et valide aculeatis, citrinis, $35-60 \approx 27-35$, episporio usque 5μ . crasso, apice non vel vix incrassato; soris teleutosporiferis hypophyllis, æque sparsis vel gregariis vel circinatim dispositis, rotundatis, ca. 1 mm. diam., epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis oblongis, apice rotundatis, incrassatis, usque 8μ ., medio leniter constrictis, basi rotundatis, levibus, obscure citrinis, $40-58 \approx 19-25$; pedicello concolori, persistenti, usque 95μ . longo, 18μ . crasso.

Hab. in foliis vivis Smilacis Gaudichaudianæ in regione Sinarum (HILLEBRAND).

307. **Puccinia Henryana** Syd. Mon. Ured. I (1903) p. 633, tab. XXXV, 1236

fig. 482. — Soris teleutosporiferis hypophyllis, maculis indeterminatis rufo- vel obscuro-brunneis insidentibus, sparsis vel paucis aggregatis vel interdum circinatis, rotundatis, hemisphæricis, ca. 1 mm. diam., compactiusculis, epidermide rupta subinde cinctis, obscure brunneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis vel acutiusculis, valde incrassatis, $10-16 \mu$., medio constrictis, basi plerumque attenuatis, levibus, dilute brunneis, $38-56 \approx 14-19$; pedicello hyalino persistenti, sporam æquante.

Hab. in foliis vivis Smilacis menispermoidis pr. Huphe Sinarum (A. HENRY).

308. **Puccinia Smilacis-China** P. Henn. in Hedw. 1901, p. (125). — 1237

Maculis fuscidulis; soris hypophyllis, sparsis, pulvinato-applanatis, subceraceis, firmis, ochraceis, dein cinnamomeis usque ad 1 mm. diam.; uredosporis interdum intermixtis, ellipsoideis v. subglobosis, subcastaneis, $20-24 \approx 20-22$, subverrucosis; teleutosporis oblonge el-

lipsoideis v. subclavatis, apice obtuse rotundatis haud incrassatis, medio septatis plus minus constrictis, primo flavidis, dein brunneis, intus granulatis, 30-60 \times 18-30; pedicello clavato v. subfusoides, gelatinoso-inflato, longitudinaliter sulcato, hyalino, usque ad 100 μ . longo, 15-30 μ . crasso.

Hab. in foliis *Smilacis Chinæ*, prope Kamomura in prov. Tosa Japoniæ.

309. **Puccinia Beschiana** R. Maire in Bull. Soc. bot. de France 1901, 1238 tom. XLVIII, p. CCXVII, tab. 13, f. IV (Etym. a mycophilo nanceiensi Besch). — Soris uredosporiferis in foliorum vivorum maculis atro-purpureis insidentibus, oblongis vel ellipticis, ochraceo-fulvis, minutis, diu epidermide tectis, sparsis v. irregulariter congregatis, aparaphysatis; uredosporis subglobosis vel ovoideis, 18-26 \times 15-24, episporio tenui, dilute brunneo, aculeato, duobus, rarius tribus poris prædito, contentu hyalino; soris teleutosporiferis in foliis emortuis sparsis, atro-brunneis, ovatis vel ellipticis, 0,5-1 mm. long., mox nudis, firmulis, aparaphysatis; mesosporis nullis; teleutosporis ad septum constrictulis, clavatis v. oblongo-clavatis, 40-53 \times 13-19, episporio undique crassiusculo, apice autem 11-15 μ incrassato nec non concentrice striato, dilute ochraceo-brunneo, levissimo; cellulæ superioris poro apicali, cellulæ autem inferioris juxta septum posito; pedicello plus minusve deciduo brunneolo, usque 30 μ . longo.

Hab. in foliis *Luzulæ Forsteri*, in pinetis Valdoniello Corsicæ.

310. **Puccinia cyrnæa** R. Main. in Bull. Soc. Bot. de France 1901, 1239 tom. XLVII, p. CCXVI cum icona (Etym. *Cyrnos* nomen græcum Corsicæ). — Soris teleutosporiferis subcutaneis, rimis plurimis dehiscens, illis *P. cancellatæ* fere similibus, sed minus elongatis, minus bullatis, firmulis, atro-brunneis; uredosporis nullis intermixtis; teleutosporis clavatis, oblongis v. fusoides, 37-72 \times 19-26, brunneis, levibus, apice valde incrassatis, usque 11 μ ., rotundatis acuminatisve, basi in pedicellum validum, usque ad 80 μ . longum, brunneolum, persistentem, 6-11 μ . cr., attenuatis; mesosporis nonnullis intermixtis, forma et dimensione variis, plerumque ovoideis, clavatis vel rhomboideis, apice valde incrassatis.

Hab. in culmis foliisque vivis *Junci maritimi*, in paludosis maritimis, in sinu Figari Corsicæ.

311. **Puccinia riparia** Holway, Journ. of Mycol. 1904, pag. 163. — 1240 *Pycnidii epiphyllis, paucissimis, e flavo fusciscentibus; maculis*

flavis non incrassatis; æcidiis hypophyllis sparsis, 1-6 in quoque soro (v. in cultura late confluentibus), margine recurvo in 2-8-lacinias fisso; æcidiosporis globosis, hyalinis, minute asperulis, 22-26 plerumque 22 μ . diam., tenue tunicatis; uredosoris hypophyllis, oblongis, brunneis; uredosporis globoso-ellipsoideis, 26-33 \times 22-26, spinulis 3 μ . alt. conspersis, brunneis, minute rugulosis; pedicellis hyalinis 35-40 μ . long.; teleutosoris hypophyllis oblongis, mox erumpentibus; teleutosporis oblongis v. oblongo-clavatis, medio constricto-septatis, 30-40 \times 13-15, apice 7-11 μ . incrassato; pedicello colorato, sporam æquante; cellula super. rotundata rarius acutata v. truncata, tunica tenui.

Hab. st. teleut. et uredosp. in foliis Caricis ripariæ, pyrenid. et æcid. in fol. Ribis floridi, Decorah Jowa Amer. bor.

312. **Puccinia Æcidii-Leucanthemi** Ed. Fisch. in Bull. de l'Herb. 1211

Boiss. VI, 1898, pag. 11, Syd. Mon. Ured. I, 1903, p. 663, *Æcidium Leucanthemi* D. C. — Syll. VII, p. 803 — *Cœoma Leucanthematum* Link Spec. II, p. 51. — Æcidiis hypophyllis, maculis orbicularibus v. irregularibus flavidis v. purpureis v. rufo-purpureis 3-12 mm. diam. insidentibus, in greges orbiculares v. irregulares dispositis v. sine ordine distributis, cupulatis, margine late recurvato, flavido, inciso; æcidiosporis angulato-globosis, verruculosis, aurantiacis, 14-20 μ . diam.; soris uredosporiferis hypophyllis, sparsis, minutissimis, vix 250 μ . longis, brunneis; uredosporis globosis, subglobosis vel ovatis, echinulatis dilute brunneis, 20-26 \times 18-22; soris teleutosporiferis hypophyllis, sparsis, minutissimis, 250 μ . diam., epidermide diutius tectis, atro-brunneis; teleutosporis clavatis, apice rotundatis v. sæpius conico-attenuatis, valde incrassatis, 14-17 μ ., medio leniter constrictis, basi attenuatis, levibus, brunneis, apice saturatoribus, 44-50 \times 18-21; pedicello subhyalino, dimidium sporæ æquante, persistenti.

Hab. æcidia in foliis vivis Chrysanthemi Leucanthemi, uredo et teleutosporæ in foliis vivis Caricis montanæ, in Germania, Austria, Hungaria, Helvetia, Italia, Fennia, Russia.

313. **Puccinia nonensis** P. Henn. Pilze Japon. II, p. 151, Hedw. 1904. 1212

— Maculis fuscis vel atris, rotundatis; soris rotundatis planis, amphigenis gregariis, atris; teleutosporis elongato-clavatis, apice valde incrassatis usque ad 15 μ ., applanatis v. rotundatis, interdum crenatis v. conicis, brunneo-castaneis, medio 1-septatis constrictis, intus granulatis, episporio tenui vix 1 μ . crasso, brunneo, 35-48 \times 14-18 μ .; pedicello ca. 20 \times 4-6 μ . hyalino-flavidulo.

Hab. in foliis Caricis spec. in mt. None, Tosa Japoniæ, (T. YOSHINAGA). — Ab affini *P. ludibunda* teleutosporis apice valide incrassatis præcipue dignoscitur.

314. *Puccinia albi-peridia* Arth. Journ. Mycol. 1902, p. 53, Syd. Mon. 1243

Ured. I, p. 652. — Pycnidiis amphigenis; æcidiiis hypophyllis, maculis orbicularibus vel suborbicularibus, flavescentibus insidentibus, in greges rotundatos circinatim dispositis, cupulatis, margine albo reflexo inciso: æcidiosporis angulato-globosis, levibus, flavescentibus, 15-20 μ . diam. episporio tenui; soris uredosporiferis hypophyllis, minutis, rotundatis vel oblongis, mox nudis; uredosporis oblongis, minutis, echinulatis; soris teleutosporiferis hypophyllis, rotundatis v. oblongis, pulvinatis, obscure brunneis; teleutosporis oblongo-cuneatis, apice rotundatis, valde incrassatis, medio non v. vix constrictis, 32-45 \times 17-24; pedicello colorato, sporam æquante vel ea brevior.

Hab. æcidia in foliis Caricis Cynosbati, gracilis, uredosporæ et teleutosporæ in foliis vivis Caricis pubescentis, in Amer. bor.

315. *Puccinia Peckii* (De Toni) Kellerm. in Journ. of Mycol. 1902, 1244

pag. 20 et p. 52 et 1903, f. 11, Sydow. Mon. Ured. I, 1903, pag. 671, *Æcidium Oenotheræ* Peck et *Æcid. Peckii* De Toni. — Syll. VII, p. 790. — Æcidiiis hypophyllis, maculis subrotundatis plerumque purpureis v. flavo-purpureis, usque $\frac{3}{4}$ cm. diam., insidentibus, in greges maculam explentes laxè dispositis, cupulatis, margine erecto vel vix recurvato, inciso, flavidis; æcidiosporis subglobosis vel angulato-globosis, punctatis, dilute flavidis, 14-18 μ . diam.; soris uredosporiferis hypophyllis, maculis indeterminatis, flavo-brunneis insidentibus, sparsis vel seriatim dispositis, oblongis, hinc inde confluentibus et usque 3 mm. longis, epidermide diutius tectis, ferrugineo-fuscis; uredosporis globosis subglobosis v. ellipsoideis, echinulatis, dilute brunneis, 24-32 \times 19-26; soris teleutosporiferis hypophyllis, maculis indeterminatis, brunneis insidentibus, sparsis, subinde confluentibus, plerumque rotundatis vel ellipticis, usque $\frac{3}{4}$ mm. diam., compactis, epidermide fissa cinctis, atris; teleutosporis clavatis, apice rotundatis vel conico-attenuatis, valde incrassatis, usque 14 μ . et obscurioribus, medio non vel vix constrictis, basi attenuatis, levibus, dilute brunneis, 38-56 \times 11-16; pedicello flavido, persistenti, usque 55 μ . longo.

Hab. æcidia in foliis vivis *Oenotheræ* biennis, uredosporæ

et teleutosporæ in foliis Caricis trichocarpæ, stipatæ, in Amer. bor.

316. **Puccinia Opizii** Bubák in Centralbl. f. Bakter. u. Parass. 1902, 1245 IX, p. 925, *Æcidium lactucinum* Lagh. et Lindr. Act. pro Fauna et Fl. Fenn. 1901, XX, n. 9, p. 19, cum icone, *Æcid. Opizii* Bubák l. c.: cfr. Syd. Mon. Ured. vol. I, pag. 659. — Pycnidiis epiphyllis; æcidiiis hypophyllis, maculis rotundatis purpurascensibus vel roseolis, zona flavescenti plus minusve expansa circumdatis, 0,5-1,5 cm. latis insidentibus, in greges maculam explentes dispositis, cupulatis vel breviter cylindraceis, margine revoluto lacerato albo; æcidiosporis globosis, subglobosis vel ellipsoideis, verruculosi, aurantiaci, 16-25 × 14-22; soris uredosporiferis hypophyllis, maculis minutis flavescentibus insidentibus, sparsis, minutis, ovatis vel oblongis, epidermide primitus tectis, demum nudis, pulverulentis, brunneis; uredosporis globosis, subglobosis, ellipsoideis vel oblongo-ellipsoideis, remote echinulatis, brunneis, 18-33 × 17-22, poris germinationis duobus præditis; soris teleutosporiferis hypophyllis v. culmicolis, sparsis v. hinc inde aggregatis, folia sæpeque omnino tegentibus, minutis, ovatis v. oblongis, diu tectis, pulvinatis atris; teleutosporis clavatis vel oblongo-clavatis apice rotundatis, truncatis vel conico-attenuatis, valde incrassatis, 10-18 µ. obscurioribusque, medio leniter constrictis, basi in pedicellum attenuatis, levibus, flavo-brunneis, 35-60 × 13-24; pedicello hyalino, persistenti, sporam æquante.

Hab. æcidia in foliis vivis Lactuæ muralis, Scariolæ, uredo et teleutosporæ in foliis caulibusque vivis Caricis muricatae, in Germania, Austria, Suecia, Fennia.

317. **Puccinia Caricis** (Schum.) Rab. — Syll. VII, p. 626. — Quoad formas heteroceciâ distinguendas cfr. Klebahn ap. Syd. Monogr. Ured. I (1903), p. 652.

318. **Puccinia Caricis-Asteris** Arthur, Journ. of Mycol. 1902, p. 54, 1246 Syd. Mon. Ured. I, 1903, p. 665, *Æcidium Asterum* Schw. — Syll. VII, pag. 802, p. p. — Pycnidiis epiphyllis; æcidiiis hypophyllis, maculis rotundatis vel subrotundatis flavis vel flavo-purpureis insidentibus, in greges circinatim dispositis vel irregulariter consociatis, cupulatis v. breviter cylindraceis, margine recurvato profunde lacerato; æcidiosporis angulato-globosis, minute verruculosi, flavescentibus, 12-18 µ. diam., episporio tenui; soris uredosporiferis, hypophyllis, oblongis; uredosporis ovatis v. oblongis, echinulatis 18-22 × 12-16, episporio tenui, poris germinationis pau-

cis sparsis instructis; soris teleutosporiferis hypophyllis, oblongis v. oblongo-linearibus, mox nudis, epidermide rupta cinctis, obscure brunneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis, valde incrassatis, $58-56 \approx 16-22$; pedicello colorato dimidium sporæ æquante.

Hab. æcidia in foliis vivis Asteris cordifolii, paniculati, salicifolii, spathulati, uredo- et teleutosporæ in foliis vivis Caricis fœneæ, Amer bor.

319. **Puccinia Caricis-Erigerontis** Arth. Journ. of Myc. 1902 p. 53, Syd. 1247

Mon. Ured. I, 1903, p. 664, tab. XXXVII, fig. 489, *Æcidium erigeronatum* Schw. — Syll. VII, p. 801. — Pycnidiis epiphyllis; æcidiis hypophyllis, maculis rotundatis vel irregularibus, magnis ca. 0,5-2 cm. latis vel subinde totum folium occupantibus, flavis v. purpureo-flavidis insidentibus, in greges rotundatos usque 1,5 cm. diam. dispositis, minutis, cupulatis, margine albo inciso reflexo; æcidiosporis angulato-globosis, subtiliter verruculosus, flavescentibus, $13-20 \mu$. diam.; soris uredosporiferis hypophyllis, sparsis, minutis, oblongis, demum nudis dilute brunneis; uredosporis subglobosis v. ovatis, echinulatis, dilute brunneis, $16-22 \approx 13-20$, poris germinationis 3-4-instructis; soris teleutosporiferis hypophyllis, sparsis, minutis, rotundatis v. oblongis, pulvinatis, epidermide fissa cinctis, atro-brunneis; teleutosporis clavatis, apice rotundatis vel truncatis, incrassatis usque 8μ . et obscurioribus, medio leniter constrictis, basi attenuatis, levibus, dilute brunneis, $35-50 \approx 12-20$; pedicello flavido, persistenti, usque 35μ . longo.

Hab. æcidia in foliis vivis Erigerontis annui, bellidifolii, canadensis, philadelphici, strigosi, uredo- et teleutosporæ in foliis vivis Caricis festucaceæ, Amer. bor.

320. **Puccinia Caricis-montanæ** Ed. Fischer in Hedw. 1903, p. (136), 1248

Æcidium Centaureæ-Scabiosæ P. Magn. — Syll. IX, p. 324: cfr. Sydow Mon. Ured. I, p. 662. — Soris longitudinaliter dispositis, elongatis 1 mm. long. $250-350 \mu$. cr., mox nudis; uredosporis globosis v. ellipsoideis, $18-21 \mu$. diam., membrana brunnea, minutissime hyalino-verruculosa; poris germinationis duobus; teleutosporis piriformibus apice rotundatis, interdum inæquilateris, rarius papillatis, deorsum sensim in stipitem attenuatis, leviter constrictis, $42-52 \approx 18-24$; membrana levi, brunnea, apice valde incrassata usque $10-14 \mu$., poro germinativo in cellula superiori subapicali, in inferiori prope septum sito; stipite hyalino, teleutosporam subæquante.

Hab. in foliis *Centaureæ montanæ* in Helvetia.

321. **Puccinia Caricis-Solidaginis** Arth. in Bot. Gaz. XXXV, 1903, 1249

p. 21, Syd. Mon. Ured. I, 1903, pag. 666, *Æcidium Solidaginis* Schw. — Pycnidiis amphigenis; æcidiis hypophyllis, maculis orbicularibus v. suborbicularibus flavis, 0,5-1 cm. diam., insidentibus, in greges maculam sæpe explentes dispositis, cupulatis vel breviter cylindraceis, margine recurvato, profundo lacerato; æcidiosporis angulato-globosis, minute verrucosis, flavescentibus, 14-20 μ . diam.; soris uredosporis et teleutosporis iis *Pucc. Caricis-Asteris* et *Pucc. Caricis-Erigerontis* affinis.

Hab. æcidia in foliis vivis *Solidaginis bicoloris*, cæsiae, canadensis, lanceolatae, latifoliae, rigidae, serotinae, ulmifoliae, uredo- et teleutosporæ in foliis vivis *Caricis Jamesii*, stipatae in Amer bor.

322. **Puccinia Yokoguræ** P. Henn. in Hedw. 1903, p. (107). — Ma- 1250

culis flavidulis v. fuscidulis explanatis; uredosporis sparsis, hypophyllis, minutis, ferrugineis; uredosporis subglobosis, ovoideis vel ellipsoideis, brunneis, verrucosis, 20-22 \times 16-18; teleutosporis hypophyllis, sparsis v. gregariis, minutis, rotundato-pulvinatis, atrocastaneis; teleutosporis clavatis vel subfusoides, apice obtuse rotundatis v. apiculatis, usque ad 10 μ . incrassatis, medio 1-septatis, leniter constrictis, episporio castaneo, levi, 20-40 \times 15-20; pedicello persistente, hyalino-fusculo ca. 6 μ . crasso.

Hab. in foliis *Caricis spec.*, Mt. Yokogura, Tosa Japoniae (YOSHINAGA).

323. **Puccinia karelica** Tranzsch. Centralbl. fr. Bakter. n. Parass. 1251
1903, II, Abt., Bd. XI, p. 106. — (Absque diagnosi).

Hab. æcidium in foliis *Trientalis europææ*, II et III in fol. *Caricis limosæ*, in Rossia.

324. **Puccinia Dulichii** Syd. Monogr. Ured. I, p. 684, t. XXXVIII, 1252

fig. 507. — Soris uredosporiferis hypophyllis, sine maculis, sparsis vel interdum aggregatis, minutis, rotundatis v. oblongis, brunneis; uredosporis subglobosis vel ellipsoideis, remote echinulatis, dilute brunneis, 16-19 \times 11-16; soris teleutosporiferis hypophyllis, sine maculis, sparsis vel seriatim dispositis, oblongis v. linearibus, 0,5-1,5 mm. longis, epidermide fissa cinctis, pulvinatis, atris; teleutosporis clavatis, apice rotundatis, valde incrassatis, 8-14 μ ., medio constrictis, basi cuneato-attenuatis, levibus, dilute brunneis, apice saturatius coloratis, 38-60 \times 15-19; pedicello brunneolo, persistenti, breviusculo.

Hab. in foliis vivis *Dulichii* spathacei in America bor.
(FARLOW, SEYMOUR).

325. *Puccinia Romagnoliana* Maire et Sacc. in Ann. Mycol. 1903, 1253

n. 3. — Soris utriusque formæ foliicolis vel culmicolis, semper epidermide tectis, ellipticis vel linearibus, sparsis vel gregariis, sæpius confluentibus, longitudine rarissime 3 mm. superantibus; soris uredosporiferis bullatis, pallide cinnamomeis, aparaphysatis; uredosporis ovoideis vel interdum subglobosis, 21-28 \times 16-21; episporio brunneo, aculeolato, duobus poris germinationis prædito; soris teleutosporiferis bullatis, fusco-atris, paraphysatis; teleutosporis inter paraphyses nidulantibus, breviter pedicellatis v. subsessilibus, plerumque oblongis vel subclavatis, medio haud vel parum constrictis, episporio subtenui, levi, dilute brunneo, nec poris germinationis præditis, juvenilibus apice apiculo incrassato sæpe e. pressione lateraliter evoluto auctis, adultis autem plus minusve rotundatis, paullo incrassatis, 40-60 \times 13-20.

Hab. in foliis culmisque *Cyper*i longi, Liamone et prope Ajaccio in paludosis Corsicæ.

326. *Puccinia hydnoides* (B. et C.) Arthur, Journ. of Mycol. 1904, 1254

vol. X, p. 19, *Æcidium hydnoides* B. et C. — Syll. VII, p. 790. — Pycnidiis amphigenis in parvulos greges in maculis latis luteis insidentibus, punctiformibus; æcidiis hypophyllis; pseudoperidiis brevibus, cylindricis, pallidis, margine paullo recurvatis, minute laceratis; æcidiosporis globosis vel oblongo-globosis, 14-19 \times 11-15; episporio 1 μ . crasso, luteolo minute verrucoso; soris uredosporiferis præcipue epiphyllis, oblongis, subimmersis, pulverulentis, fuscis; uredosporis globosis vel obovato-globosis, 20-28 \times 18-21; episporio 1 μ . crasso, brunneo, valde echinulato; poris germinationis 4 vel ultra; soris teleutosporiferis, præcipue hypophyllis et cauliculis, minimis, numerosis, oblongis, epidermide tectis; teleutosporis lineari-oblongis, 30-50 \times 13-18 superne truncatis, inferne obtusis vel subconicis, ad septum non constrictis; episporio levi, pallide brunneo, 1-1,5 μ . cr., apice 4-7 μ . cr.; pedicello brevissimo, pallide colorato; paraphysibus paucis vel nullis.

Hab. in foliis *Dicræ* palustris (*Æcidium*); in foliis *Bromi* ciliati (*Puccinia*) in America bor.

327. *Puccinia Mühlenbergiæ* Arth. et Holw. Bull. Nat. Hist. Univ. 1255

Jowa, 1902, p. 317, Syd. Monogr. Ured. p. 765, *Æcidium hibisciatum* Schw. — Syll. VII, p. 781, *Pucc. hibisciatum* Kellerm. in Journ. of Mycol. 1903, vol. 9, p. 110. — *Æcidiis* hypophyllis,

maculis orbicularibus brunneis, margine flavis, magnis, 0,5-1,5 cm. diam., insidentibus, in greges totam maculam explentes, plerumque dense confertis, subinde irregulariter circinatis, breviter cylindraceis, margine recurvato, lacerato; æcidiosporis globosis, angulato-globosis v. late ellipsoideis, punctatis flavidis, 20-26 μ . diam.; soris uredosporiferis hypophyllis vel hinc inde amphigenis, minutis, oblongis, mox nudis, pulverulentis, dilute brunneis; uredosporis globosis v. subglobosis, dense et distincte echinulatis, flavo-brunneis, 22-30 μ . diam., episporio tenui, poris germinationis circ. 5 sparsis instructis; soris teleutosporiferis plerumque hypophyllis, dein sparsis, subrotundatis, oblongis vel lineari-oblongis, 0,5-1,5 mm. longis, subinde confluentibus, atro-brunneis; teleutosporis ellipsoideis v. ellipsoideo-oblongis, apice rotundatis, leniter 4-6 μ . incrassatis, medio non vel parum constrictis, basi rotundatis vel leniter attenuatis, levibus, brunneis, 30-40 \times 18-27, episporio mediocri; pedicello brunneolo, firmo crassiusculo, sporam æquante vel ea paullo longiore, subinde oblique inserto.

Hab. æcidia in foliis vivis Hibisci moschati, uredo- et teleutosporæ in foliis vivis Mühlenbergiæ diffusæ, mexicanæ, racemosæ (=glomeratæ) in Amer. bor.

328. *Puccinia Zoysiae* Diet. in Bot. Jahrb. 1902, pag. 48. — Soris 1256
hypophyllis, mediocribus, oblongis; uredosporis ellipsoideis v. obovatis 17-21 \times 15-17, episporio hyalino vel flavescenti subcrasso verruculoso donatis; soris teleutosporiferis atro-fuscis, firmis, nudis, pulvinatis; teleutosporis ellipsoideis vel oblongis, utrinque rotundatis, rarius apice conoideis vel truncatis, ad septum leniter vel non constrictis, 28-40 \times 16-25; episporio levi, castaneo, apice modice incrassato vestitis, pedicello hyalino, usque 80 μ . longo suffultis.

Hab. in foliis Zoysiae pungentis, Tokyo Japoniæ (KUSANO).

329. *Puccinia villis* Arthur in Bull. Torr. Bot. Cl. 1901, p. 663. — 1257
Soris amphigenis, oblongis vel linearibus, in maculis brunneis insidentibus, subepidermicis, brunneis (ured.) et brunneo-nigris (teleut.); uredosporis ellipticis, ovatis v. globosis, 18-26 \times 22-30, brunneo-luteolis, episporio 3-4 μ . cr., echinulato-verruculoso donatis; teleutosporis ellipticis vel obovatis, 19-23 \times 33-45, apice obtusis, brunneis, basi rotundatis v. angustatis; pedicello concolori, firmo sporæ subæquilongo.

Hab. in foliis Panicæ Crus-Galli prov. Jowa, Amer. bor.

330. *Puccinia Triticorum* Speg. Myc. argent. ser. II, 1902, p. 65. — 1258

Maculis nullis; acervulis epidermide semper tectis, linearibus, duris, fuscis; soris depressis, subsclerotiaceis, sæpe confluentibus 0,4-1,2-5 mm. long. 0,4-0,5 mm. lat., extus fuscis, intus atris; teleutosporis e clavulato bacillaribus, pallide ferrugineis, 40-50 \times 11-18, loculo supero ovato v. subcuboideo, 15-20 \times 16-18, subdenticulato crasseque tunicato, infero elongato cuneato, 25-30 \times 11-15, pedicello persistente 10-15 \times 6-8 subhyalino ornatis.

Hab. ad folia Triticorum cultorum, prope S. Juan in Argentina. — Species habitu externo *P. coronatæ* Corda et *Pucc. Brachypodii* Otth simillima, sed notis internis longo recedens.

331. **Puccinia triticina** Erikss. in Ann. Sc. Nat. 1899, p. 270, Syd. 1259

Monogr. Uredin. I, p. 716, *Uredo triticina* Erikss. l. c. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, oblongis, mediocribus, ferrugineis; uredosporis globosis v. subglobosis, echinulatis, flavis, 20-27 μ . diam.; soris teleutosporiferis hypophyllis v. culmicolis, sparsis, in culmo sæpe seriatim dispositis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis, sæpe obtuse et oblique angustatis, vix v. parum incrassatis, medio leniter constrictis, basi attenuatis, levibus, brunneis, 30-45 \times 12-20; pedicello brevi; paraphysibus brunneolis numerosis.

Hab. in foliis culmisque Triticici compacti, dicocci, Speltæ, vulgaris in tota Europa et Amer. bor.

332. **Puccinia Triseti** Erikss. in Ann. Sc. Nat. 1899, p. 277, Syd. 1260

Monogr. Ured. I, p. 716, *Uredo Triseti* Erikss. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, minutis, punctiformibus, flavo-brunneolis v. flavidis; uredosporis globosis vel subglobosis, echinulatis, flavis, 18-29 μ . diam.; soris teleutosporiferis hypophyllis, rarius evolutis, minutis, punctiformibus, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis vel obtuse et oblique angustatis, leniter incrassatis, medio plerumque leniter constrictis, basi sæpius attenuatis, levibus, brunneis, 32-48 \times 16-23; pedicello brevi; paraphysibus brunneolis.

Hab. in foliis Triseti flavescientis in Germania, Italia, Gallia et Suecia.

333. **Puccinia tosta** Arthur in Bull. of the Torr. Bot. Club 1902, 1261

pag. 228. — Soris uredosporiferis amphigenis, minutis, brunneoluteis, cito nudis; uredosporis globosis 20-30 μ . diam.; episporio brunneo-luteolo, exili 1,5 μ . crasso, dense minuteque tuberculatis, poris 6 vel pluribus, sparsis; soris teleutosporiferis amphigenis,

prominentibus, rotundatis vel oblongis, nigro-brunneis, erumpentibus, nudis; teleutosporis globosis vel oblongis, 20-30 \times 30-40, utrinque rotundatis, parce constrictis, apice paullo acuminatis 5-10 μ ., pedicello crasso, firmo, colorato, sporâ duplo vel triplo longiore donatis.

Hab. in foliis Sporoboli cuspidati, utilis, asperifolii in Amer. bor. — Var. *luxurians* Arthur l. c.: uredosporis paullo latioribus quam in typo, valde tuberculatis fere echinulatis, episorio fere 2 μ . crasso; soris teleutosporiferis elongatis; teleutosporis latioribus, 43-55 \times 27-32. In foliis Sporoboli airoidis, Andrews, Oreg., Amer. bor.

334. *Puccinia subandina* Speg. Myc. argent. ser. II, 1902, p. 65. — 1262
Maculis nullis; acervulis orbicularibus 0,5 mm. diam., depressis, subnudis, duriusculis; soris innato-erumpentibus, obscure ferrugineis, sparsis; teleutosporis clavulatis, apice subtruncatis v. obtusissime rotundatis ibique crasse tunicatis, 60 \times 14-20, loculo supero obovato 20-25 \times 18-20, infero cuneato, 30-35 \times 14-16, pallide fulvis, levibus, ad septum leniter constrictis, stipitibus flexuosis, 20-30 \times 5-8 hyalinis præditis.

Hab. in foliis vivis Poæ chorizanthæ, secus Carrenleofu in Argentina.

335. *Puccinia simplex* (Koern.) Erikss. et Henn. in Getreideroste 1263
1896, pag. 238, Sydow Mon. Ured. I, pag. 756, *P. graminis* Fuck. var. *simplex* Koern. *P. rubigo-vera* (D. C.) var. *simplex* Auct. — Syll. VII, p. 625. — *P. anomala* Rostr. — Soris uredosporiferis, amphigenis, sparsis, minutis, punctiformibus, flavis; uredosporis subglobosis v. ellipsoideis, echinulatis, flavis, 19-22 μ . diam. v. 22-27 \times 15-20; soris teleutosporiferis amphigenis v. sæpe culmicolis, in folio sparsis, minutis, punctiformibus, in culmo majoribus, plerumque oblongis confluentibusque, epidermide tectis, atris; teleutosporis septatis plus minusve evolutis, oblongo-clavatis, apice rotundatis v. oblique conico-attenuatis, 4-8 μ . incrassatis, levibus, brunneis, 40-54 \times 15-24; pedicello brunneolo, brevi; mesosporis plerumque numerosissimis, asymmetricis, oblongis vel clavulatis, variabilibus, apice 4-10 μ . incrassatis, 25-45 \times 16-24; paraphysibus brunneis, apice incrassatis.

Hab. in foliis culmisque Hordei distichi, secalini, vulgaris, zeocriti, in tota Europa et Asia minori.

336. *Puccinia rufipes* Diet. in Bot. Jahrb. 1902, pag. 48. — Soris 1264
oblongis vel linearibus, hypophyllis, minus copiose etiam epiphyll-

lis, uredosporiferis ochraceis; uredosporis obovatis vel ellipsoideis, echinulatis, obscure castaneis vel rufis, $25-35 \approx 18-26$, poris 4 æquatorialibus instructis, paraphysibus capitatis pallidis intermixtis; soris teleutosporiferis atris; teleutosporis ellipsoideis, utrinque rotundatis ad septum leniter constrictis, levibus, apice vix incrassatis, $28-33 \approx 20-23$. pedicello longissimo usque 90μ ., intense rufo-brunneo interdum oblique vel lateraliter inserto, firmo suffultis.

Hab. in foliis Imperatæ arundinaceæ var. Koenigii, Tokyo Japoniæ (KUSANO).

337. **Puccinia Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 1265
1902, p. 105. — Maculis pallidis v. obsoletis; soris uredosporiferis hypophyllis v. amphigenis, sparse gregariis, punctiformibus, rotundatis diutius tectis, flavidulis; uredosporis subglobosis, ellipsoideis v. ovoideis, $20-30 \approx 20-24$, flavidis, aculeatis; soris teleutosporiferis amphigenis, rotundatis v. oblongis, diutius tectis, fuscis; teleutosporis oblonge ovoideis v. clavatis, apice valde incrassatis, rotundatis, interdum oblique papillatis, medio 1-septatis, haud v. paulo constrictis, flavidis, $30-40 \approx 15-20$, episporio brunneo, levi; pedicello persistente, flavido, usque ad $30 \approx 4-6$.

Hab. in foliis Panicis prope S. Paulo Brasiliæ.

338. **Puccinia Panicariæ** Arth. in Bull. Torr. Bot. Cl. 1901, p. 663. 1266
— Soris amphigenis, oblongis, parvulis, subepidermicis; uredosporis subglobosis vel oblongis, pallide luteis, $18-26 \approx 15-21$; episporio minute verruculoso; teleutosporis oblongis, clavatis vel lineariformibus, brunneis, ad septa parce constrictis, $43-70 \approx 15-19$, apice rotundato-obtusis, papillatis, basi angustatis; pedicello brevissimo brunneo; paraphysibus nullis.

Hab. in foliis Panicariæ americanæ (= *Glyceria grandis*), Spirit Lake, Iowa Amer. bor. (J. C. ARTHUR).

339. **Puccinia Micranthæ** Griff. Bull. Torr. Cl. 1902, pag. 299, Syd. 1267
Mon. Ured. I, p. 768, tab. XLI, fig. 536. — Soris teleutosporiferis epiphyllis, sparsis, minutis, rotundatis vel oblongis, atris; uredosporis immixtis globosis v. subglobosis v. ellipsoideis, subtiliter echinulatis, flavis, $15-18 \mu$. diam.; teleutosporis variabilibus, ovato-ellipsoideis, oblongis vel oblongo-clavulatis, apice sive rotundatis sive longe attenuatis, valde incrassatis, usque 17μ ., medio constrictis, basi rotundatis, rarius attenuatis, levibus, brunneis, $30-50 \approx 14-25$; pedicello hyalino persistenti, usque 90μ . longo.

Hab. in foliis vivis Oryzopsidis micranthæ, Billings in Montana Amer. bor. (WILLIAMS et GRIFFITS).

340. *Puccinia Melicæ* (Erikss.) Syd. Monogr. Ured. I, p. 760, *Pucc.* 1268

coronata f. *Melicæ* Erikss. in Ber. Deutsch. Bot. Gesell. 1894, p. 322. — Soris uredosporiferis hypophyllis, sparsis, minutissimis, rotundatis vel oblongis, pulverulentis, aurantiacis; uredosporis globosis, subglobosis, ellipsoideis v. angulatis, subtilissime echinulatis, flavescentibus, 15-18 \times 11-16, paraphysibus nullis; soris teleutosporiferis raro evolutis, hypophyllis, minutissimis, atris; teleutosporis clavatis, apice applanatis, dentibusque acutis instructis, medio non vel parum constrictis, basi attenuatis, levibus, brunneis, 9,5-11 μ . latis, loculo superiore 24-37 μ . longo, inferiore 32-37 μ . longo (sec. Eriksson); pedicello brevi.

Hab. in foliis *Melicæ* nutantis in Germania, Suecia, Norvegia.

341. *Puccinia kozukensis* Diet. in Bot. Jahrb. 1902, p. 48. — Soris 1269

hypophyllis oblongis vel rotundatis; uredosporis late ellipsoideis, flavescentibus, verruculosus, ca. 24 \times 21; soris teleutosporiferis pulvinatis, nudis, atris; teleutosporis obovatis vel oblongis, utrinque rotundatis, rarius basi attenuatis, ad septum leniter constrictis 33-45 \times 18-25, episporio levi, castaneo, apice usque 8 μ . incrassato vestitis, pedicello longo, hyalino, firmo instructis.

Hab. in foliis *Andropogonis* spec. in prov. Kozuké Japoniæ (KUSANO).

342. *Puccinia Hookeri* Syd. Monogr. Ured. I, p. 723, tab. XXXIX, 1270

fig. 515. — Soris teleutosporiferis amphigenis, sparsis, rotundatis v. oblongis 0,5-1,5 mm. longis, mox nudis, compactis, obscure brunneis; uredosporis immixtis globosis, subglobosis v. ellipsoideis, verruculosus, flavis, 24-30 \times 20-26; episporio crasso, 5-6 μ .; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis vel rarius obtuse conico-attenuatis, valde incrassatis usque 10 μ ., medio non v. leniter constrictis, basi rotundatis, levibus, flavo-brunneis, 38-54 \times 26-35; pedicello hyalino persistenti, crasso, usque 100 μ . longo.

Hab. in foliis *Andropogonis* echinulati, Himalaya Indiæ or. (HOOKER FIL. et THOMSON).

343. *Puccinia holcina* Erikss. in Ann. Sc. Nat. 1899, p. 274, Syd. 1271

Monogr. Ured. I, p. 715, *Uredo holcina* Erikss. l. c. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis v. hinc inde aggregatis, minutis, oblongis, flavo-brunneis; uredosporis globosis v. subglobosis, echinulatis, flavis, 20-28 μ . diam.; soris teleutosporiferis amphigenis, sparsis vel in vaginis lineariter aggregatis,

minutis, epidermide tectis, atris; teleutosporis ellipsoideo-clavatis v. clavatis, apice rotundatis v. obtuse et oblique angustatis, non v. parum incrassatis, medio leniter constrictis, basi plerumque attenuatis, levibus, brunneis, $34-54 \approx 16-24$; pedicello brevi; paraphysibus brunneis, numerosis.

Hab. in foliis culmisque Holci lanati, mollis, in Germania, Austria, Hungaria, Italia, Norvegia, Suecia, ins. Madera.

344. **Puccinia Gymnopogonis** Syd. Monogr. Ured. I, p. 755, tab. XLI, 1272

fig. 531. — Soris teleutosporiferis hypophyllis, subinde culmicolis, sine maculis, sparsis, rotundatis, compactis, pulvinatis, 0,8-1 mm. diam., atris; teleutosporis ovato-ellipsoideis vel late ellipsoideis, apice rotundatis, non v. vix incrassatis, medio non v. vix constrictis, basi rotundatis, levibus, castaneo-brunneis, $24-30 \approx 18-21$, episporio ca. 2,5 μ . crasso; pedicello brunneo, persistenti, usque 60 μ . longo, sæpissime e latere inserto; mesosporis globosis vel subglobosis 18-24 μ . diam.

Hab. in foliis culmisque Gymnopogonis (Chloridis) foliosi, Santarem in prov. Parà Brasiliæ (R. SPRUCE).

345. **Puccinia glumarum** (Schum.) Erikss. et Henn. Die Getreideroste 1273

p. 141 (1896), Syd. Mon. Ured. I, p. 706, *Uredo glumarum* Schum. Allgem. ök. techn. Fl. I, p. 27 (1827). — Soris uredosporiferis hypophyllis, minutis, oblongis, usque 1 mm. longis, seriatim in lineas usque 7 cm. longas dispositis et interdum confluentibus, flavo-citrinis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, flavis, $25-30 \approx 18-26$; soris teleutosporiferis hypophyllis v. culmicolis, in lineas longas dispositis, in spicis sæpe sparsis, oblongis, obscure brunneis v. atris, epidermide tectis; teleutosporis clavatis, apice rotundatis, truncatis v. conico-angustatis, incrassatis, 4-6 μ . interdum usque 10, medio leniter constrictis, basi attenuatis, levibus, brunneis, $30-70 \approx 12-24$; pedicello brevissimo, subnullo; paraphysibus brunneis, numerosis.

Hab. in foliis, culmis vel spicis Brachypodii silvatici, Bromi mollis, Calamagrostidis Epigei, Elymi arenarii, Hordei hexastici, jubati, vulgaris, Secalis Cerealis, Tritici canini, compacti, dicocci, desertorum, distichi, duri, gigantei, polonici, repentis, Speltæ, turgidi, vulgaris in tota Europa, Ægypto, America boreali, Japonia.

346. **Puccinia flavescens** Mc. Alp. Proc. Linn. Soc. N. S. Wales 1274

1903, p. 558. — Soris uredosporiferis epiphyllis, minutis, lineari-

bus, interdum confluentibus, immersis, pulverulentis, rufo-brunneis; uredosporis globosis vel breve-ellipsoideis, minute echinulatis, aureo-brunneis, 21-24 μ . diam. vel 25-28 \approx 21-24; poris germinationis 5, irregulariter sparsis; soris teleutosporiferis minutis, ellipsoideis, nigris, sæpe confluentibus; teleutosporis intense brunneis, oblongis, ad septum constrictis, apice rotundatis, levibus, 33-48 \approx 18-24; pedicello persistenti, colorato, usque 72 μ . longo.

Hab. in foliis *Stipæ* flavescentis, Hampton in Victoria Australiæ.

347. **Puccinia Epicampis** Arthur, New spec. of Ured. in Bull. Torr. 1275 Bot. Cl. 1901, p. 662. — Soris amphigenis, oblongis vel linearibus; soris uredosporiferis brunneo-luteis, epidermide lacerata, liberis, prominentibus; uredosporis oblongis vel subglobosis 22-24 \approx 26-30, episporio brunneo echinulato vel papillato; soris teleutosporiferis intense brunneis; teleutosporis oblongis vel ellipticis, ad septa paullo vel non constrictis utrinque rotundatis, 30-40 \approx 22-26; pedicello firmo hyalino, basi colorato 40-90 μ . longo.

Hab. in foliis *Epicampis* ringentis, Hot Springs, N. Mex. Amer. bor.

348. **Puccinia Enteropogonis** Syd. Monogr. Ured. I, p. 751, t. XL, 1276 fig. 528. — Soris teleutosporiferis amphigenis, plerumque hypophyllis, sparsis, minutis, rotundatis vel oblongis, 350-500 μ . longis, nudis, subpulvinatis, atro-brunneis; uredosporis immixtis globosis, subglobosis v. ellipsoideis, subtiliter verruculoso-aculeatis, dilute brunneis, 19-24 μ . diam.; teleutosporis ellipsoideis vel ovatis, utrinque rotundatis, apice non vel rarius lenissime incrassatis, medio non vel vix constrictis, levibus, castaneo-brunneis, 21-31 \approx 16-26, episporio ca. 2-2,5 μ . lato; pedicello crassiusculo, persistenti, hyalino, apice brunneo, interdum laterali, usque 85 μ . longo.

Hab. in foliis vivis *Enteropogonis monostachyi*, Usambara, Africae orient. (C. Holst).

349. **Puccinia dispersa** Erikss. et Henn. Die Getreideroste pag. 110 1277 (1894) Syd. Monogr. Ured. I, p. 709, *Uredo dispersa* Erikss. et Henn., *Æcidium Anchusæ* Erikss. et Henn. etc. — *Æcidii* hypophyllis, sæpe etiam calyces fructusque occupantibus, maculis orbicularibus v. suborbicularibus flavidis v. rufo-flavidis insidentibus, cupulatis, margine revolutis, inciso; æcidiosporis globosis, verruculosis, aurantiacis, 20-26 μ . diam.; soris uredosporiferis præcipue epiphyllis, oblongis, ferrugineis, minutis vel medioeribus; uredosporis subglobosis, echinulatis, flavis, 22-28 μ . diam.; soris teleu-

tosporiferis hypophyllis vel sæpe in vaginis evolutis, sparsis vel subinde aggregatis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis, apice rotundatis v. obtuse et oblique angustatis, parum incrassatis, medio plerumque leniter constrictis, basi attenuatis, levibus, brunneis, 40-50 \times 12-20; pedicello brevi; paraphysibus brunneolis, numerosis.

Hab. æcidia in foliis calycibus fructibusque Anchusæ angustissimæ arvensis, Barrelieri, hybridæ, italicæ, ochroleucæ, officinalis, undulatæ, uredo- et teleutosporæ in foliis vaginisque vivis Secales cerealis, montani, in tota Europa, Asia minori, America bor.

350. *Puccinia Burnettii* Griffiths in Bull. of the Torr. Bot. Club. 1278

1902, p. 298. — Epiphylla; soris uredo- et teleutosporiferis latis, sparsis, 2 cm. diam. marginem foliorum recurvantibus, erumpentibus, in macula epiphylla brunnea insidentibus; uredosporis subglobosis vel ellipticis v. ovatis 20-26 μ . diam., episporio crasso, tuberculato donatis; teleutosporis utrinque rotundatis v. utrinque conico-obtusis, ad septum constrictis, 28-31 \times 18-23, episporio superne crasso, inferne tenui; pedicello hyalino, 60-120 μ . longo.

Hab. in foliis Stipæ comatæ pr. Buffalo, Wyo (WILLIAMS et GRIFFITHS) et Billings, Montana Amer. bor. (BURNETT).

351. *Puccinia bromina* Erikss. in Ann. Sc. Nat. 1899, p. 271, Syd. 1279

Monogr. Ured. I, p. 712, *Pucc. Symphyti-Bromorum* Müll. Bot. Centr. Beih. 1901, p. 201, *Uredo bromina* Erikss. l. c. *Puccinia dispersa* f. *Bromi* Erikss., *Æcidium Asperifolii* Pers. *Æcid. Symphyti* Thüm., *Æcid. Pulmonaricæ* Thüm. — Pycnidiis melleis; æcidiiis hypophyllis v. petiolicolis, subinde etiam in calycibus evolutis; maculis orbicularibus v. irregularibus 1 cm. vel ultra longis brunneis vel purpureo-brunneis, zona flavida sæpe circumdatis, insidentibus, in greges variæ magnitudinis circulariter vel plus minusve irregulariter dispositis, cupulatis, margine revoluto inciso; æcidiosporis angulato-globosis, verruculosi, aurantiaci, 18-27 μ . diam.; soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis v. hinc inde aggregatis, minutis v. mediocribus, oblongis, interdum confluentibus, ferrugineis; uredosporis subglobosis v. late ellipsoideis, echinulatis, flavis, 20-26 μ . diam.; soris teleutosporiferis hypophyllis, sparsis, minutis; oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. interdum obtuse et oblique angustatis, non v. parum incrassatis, medio plerumque leniter constrictis, basi sæpius attenuatis, levibus, brun-

neis, 36-50 \times 14-18; pedicello brevi; paraphysibus brunneolis, numerosis.

Hab. æcidia in foliis petiolisque vivis Pulmonariæ montanæ, Symphyti officinalis, uredo- et teleutosporæ in foliis Bromi specierum omnium in tota Europa et in Asia minore.

352. *Puccinia brachysora* Diet. in Bot. Jahrb. 1902, p. 49. — Soris 1280
minutis, oblongis, uredosporiferis, hypophyllis, ochraceis, teleutosporiferis epiphyllis, griseis vel nigris, epidermide tectis; uredosporis late ellipsoideis, ovoideis vel subglobosis, 25-31 \times 20-24, dilute fuscis, echinulatis, poris numerosis instructis, paraphysibus haud intermixtis; teleutosporis oblongis vel cuneatis vel irregularibus, apice truncatis vel obliquis, paullo incrassatis, ad septum vix vel non constrictis, basi rotundatis vel attenuatis, fuscis, 33-45 \times 15-20; pedicello brevissimo suffultis.

Hab. in foliis Brachypodii japonici, Tokyo Japoniæ (KUSANO).

353. *Puccinia Diplachnes* Arthur, Bull. Torr. Bot. Cl. 1904, p. 4. — 1281
Uredosporis, in soris teleutosporiferis, subellipsoideis vel fere globosis 24-26 \times 19-21; episporio hyalino 3 μ . crasso, minute verrucoso, poris 4 æquatorialibus; soris teleutosporiferis fere semper hypophyllis oblongo-linearibus, immersis, pulvinatis, prominentibus, compactis, nigro-brunneis; teleutosporis ellipsoideis, 32-39 \times 20-24, ad septum non vel vix constrictis, utrinque obtusis vel rotundatis; episporio levi, 1,5-2,5 μ . crasso, superne usque 7 μ . cr. pallide brunneo; pedicello spora concolori, 40-100 μ . longo.

Hab. in foliis *Diplachnes* dubiæ, Big Springs, Texas, Amer. bor. (S. M. TRACY).

354. *Puccinia brachypus* Speg. Myc. argent. ser. II, 1902, p. 61. — 1282
Maculis nullis; acervulis minutis, confluyendo linearibus compactis, duriusculis epidermide tectis, fuscis, 0,25-3 mm. long., 0,15-0,30 mm. latis, subsclerotiaceis; teleutosporis obconicis levibus pallide ochraceis, medio non v. vix constrictis, 35-45 \times 15-20, loculis subæquilongis, apice sæpius truncatis crassiusculequo tunicatis, intus minute et dense granulosi, pedicello subnullo 3-7 \times 4-6 pallidiore suffultis.

Hab. ad folia et culmos Bromi auleatici prope Rufino Nov. et in Tritico sativo prope S. Juan in Argentina. Species habitu externo et notis nonnullis ad *P. coronatam* Corda vergens, *P. sessili* Schr. etiam cognata.

355. *Puccinia Arrhenatheri* (Kleb.) Erikss. in Cohn Beitr. 1898, I, 1283

p. 1 et 1901, II, p. 111, Sydow Monogr. Ured. I, p. 729, *Puccinia perplexans* Plow. f. *Arrhenotheri* Kleb., *P. Magelhaenica* Peyr. — Syll. XI, p. 202, *Æcidium graveolens* Shuttl. — Syll. VII, p. 778. — Pycnidiis minutis, numerosissimis, magnam folii partem vel folium totum æque obtegentibus; æcidiiis hypophyllis, subinde etiam in floribus evolutis, ramulos infectos deformantibus, plerumque per folium totum æque denseque distributis, cylindraceo-cupulatis, margine revoluto, albido, lacerato; æcidiosporis subglobosis vel ellipsoideis, verruculosi, flavidis, $19-32 \approx 16-24$; soris uredosporiferis præcipue epiphyllis, rarissime hypophyllis, maculis minutis flavis insidentibus, ellipticis v. oblongis, minutis, dilute ferrugineis; uredosporis globosis v. ovatis, echinulatis, flavis $19-30 \approx 19-26$, poris germinationis numerosis præditis; paraphysibus numerosis, usque 80 μ . longis, apice 10-14 μ . latis immixtis; soris teleutosporiferis hypophyllis, sparsis, minutis, punctiformibus v. breviter linearibus, epidermide tectis, atris; teleutosporis ellipsoideo-oblongis v. oblongo-clavatis, apice rotundatis truncatis vel rarius leniter attenuatis, incrassatis, 5-10 μ ., et obscurioribus, medio non v. vix constrictis, basi plerumque attenuatis, levibus, dilute brunneis, $30-45 \approx 18-24$; pedicello tenui, brunneolo; paraphysibus brunneolis immixtis.

Hab. æcidia in foliis floribusque Berberidis vulgaris, heteropodæ, uredo- et teleutosporæ in foliis vivis Arrhenatheri elatioris, in Germania, Austria, Hungaria, Helvetia, Suecia, Fennia, Turkestan.

356. *Puccinia agropyrina* Erikss. in Ann. Sc. Nat. 1899, pag. 273, 1284 Syd. Monogr. Uredin. pag. 712, *Uredo agropyrina* Erikss. l. c., *Puccinia dispersa* f. *Agropyri* Erikss. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, minutis, punctiformibus, ferrugineis; uredosporis globosis, subglobosis vel late ellipsoideis echinulatis, flavis, 16-26 μ . diam.; soris teleutosporiferis hypophyllis, sparsis, interdum seriatim dispositis, minutis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis, apice rotundatis v. obtuse et, oblique angustatis, vix vel leniter incrassatis, medio plerumque leniter constrictis, basi attenuatis, levibus, brunneis, $36-56 \approx 13-18$; paraphysibus brunneolis, numerosis.

Hab. in foliis Agropyri repentis, in Germania, Austria, Hungaria, Italia et Suecia.

357. *Puccinia negrensis* P. Henn. Fungi Amaz. I, p. 159 (Hedw. 1285 1904). — Maculis minutis vel confluentibus-effusis, ferrugineis; ure-

uredosoris amphigenis, pulvinatis, diutius tectis, ferrugineis; uredosporis ovoideis, interdum subglobosis vel ellipsoideis flavido-brunneis, aculeato-verrucosis, $15-24 \approx 13-18$; teleutosporis hypophyllis gregarie sparsis, rotundato-pulvinatis firmis, cinnamomeis, ca. $0,3-0,4 \mu$. diam.; teleutosporis ovoideis interdum ellipsoideis, apice vix incrassatis, rotundatis, medio 1-septatis constrictis. flavo-brunneis, levibus, $15-25 \approx 10-16$; stipite plus minus elongato, hyalino subflavidulo, $10-30 \approx 2-3$.

Hab. in foliis *Panici* sp., Rio Negro, Moura, Amer. merid. —

Soris firmis, pulvinatis, teleutosporarum notis sat distincta species.

358. **Puccinia simillima** Arth. in Bot. Gaz. 1902, XXXIV, p. 17, II, 1286

III. — Soris amphigenis minusculis, oblongis, epidermide fissa; uredosoris late flavis pulverulentis, paraphysibus clavatis intermixtis; uredosporis obovato-oblongis clavatisque, $26-44 \approx 18-22$, modice tunicatis, aureo-flavis, minute tuberculatis et interdum leviter echinulatis, poris germinat. sparsis, obsoletis; teleutosoris minutis, copiosissimis, subnigris; teleutosporis, subinde ex uredosoris provenientes, lineari-oblongis v. oblongo-lanceolatis, septo leniter constrictis, $42-56 \approx 15-20$, basi tenuatis, apice acutiusculis v. plus minus obtusis, ad 15μ . incrassatis; pedicello firmo, crasso, sporam plus minus æquante.

Hab. in foliis et vaginis *Phragmitis communis* in Americæ borealis pluribus locis. — Pycnidia et æcidia incerta.

359. **Puccinia peridermiospora** Arthur, Science I, p. 565 (1899), Puc- 1287

cinia fraxinata (Link) Arth. in Bot. Gaz. 1902, p. 6. — I *Cæoma fraxinatum* Link in Willd. sp. pl. 62, p. 62, *Æcidium Fraxini* Schw. — Syll. VII, p. 806. — II *Uredo peridermiospora* Ell. et Tr. — Syll. IX, p. 333. — *Puccinia sparganioides* E. et Tr. III. — Teleutosoris pulvinatis, atro-brunneis, hypophyllis; teleutosporis ellipsoideo-oblongis, $35-62 \approx 16-22$, septo leniter constrictis, apice obtusis incrassatisque; pedicello firmo, angusto, sporam æquante v. duplo longiore.

Hab. II-III in foliis *Spartinæ cynosuroidis* in Amer. boreali pluribus locis. — In foliis *Fraxini lanceolatae* et *F. pennsylvanicæ*, socio *Æcidio* pycnidiis epiphyllis, flavidis, exiguis; sporulis obovato-oblongis $5 \approx 3$.

360. **Puccinia Seymouriana** Arth. in Bot. Gaz. 1902, XXXIV, p. 11. 1288

— Soris epiphyllis, internerviis, prominulis, oblongis, epidermide rupta obsolete cinctis; uredosporis glöbosis v. late ellipsoideis, $30-45 \approx 26-39$, tuberculatis, contentu aurantiaco globuloso, dein flavo

angulosoque; tunica hyalina, poris germinativis obsoletis; teleutosoris pulvinatis, cinnamomeo-brunneis; teleutosporis ellipsoideo-oblongis, 37-52 \times 20-26, ad septum leviter constrictis apice obtuso incrassato; pedicello firmo, tenui, colorato, teleutosporam æquante v. triplo longiore.

Hab. in foliis *Spartinæ cynosuroidis* Massachusetts, Wisconsin, Illinois, Iowa, Ontario etc. Amer. bor.

361. *Puccinia himalensis* (Barcl.) Diet. in Engl. Prantl, Pflanzenfam. 1239

Pilze II, p. 63 (1900), Syd. Monogr. Ured. I, p. 738, *P. coronata* var. *himalensis* Barcl. Trans. Linn. 1891, pag. 227, t. LVI. —

Æcidii hypophyllis, maculis rotundatis flavo-brunneis v. rufo-brunneis insidentibus, laxè fasciculatis, longè cylindræis, usque 2 mm. longis, albis; æcidiosporis globosis vel angulatis, verruculosis, flavis, 19-25 \times 19-22; soris uredosporiferis præcipue epiphyllis, sparsis, minutis v. mediocribus, flavo-brunneis; uredosporis globosis, subtiliter echinulatis, pallide flavo-brunneis, 20-24 μ . diam., poris germinationis tribus vel quatuor instructis; soris teleutosporiferis epiphyllis, sæpe etiam in vaginis evolutis, sparsis, minutissimis, plerumque rotundatis, compactiusculis, nudis, atris; teleutosporis clavatis, apice usque 5 μ . incrassatis et dentibus 2 vel pluribus, 2-11 μ . longis coronatis, medio non v. parum constrictis, basi attenuatis, levibus, 38-52 μ . longis, cellula superiore 16-22 μ . lata et brunnea, inferiore 9-16 μ . lata et pallidiore; pedicello brunneo, crassiusculo, usque 30 μ . longo.

Hab. æcidia in foliis ramulisque vivis *Rhamni dahuricæ*, uredo- et teleutosporæ in foliis vaginisque *Brachypodii silvatici* in Simla Indiæ orient. (BARCLAY).

362. *Puccinia Oudemansii* Tranzsch. in Sydow, Mon. Ured. I, p. 894. 1290

— Teleutosoris hypophyllis v. amphigenis v. etiam petiolicolis, 1-4 mm. diam., rotundatis v. irregularibus, epidermide diu tectis, pulverulentis, castaneo-brunneis; teleutosporis, oblongis v. oblongo-clavatis apice sæpius rotundatis, leniter incrassatis, usque 7 μ ., medio constrictis, basi rotundatis v. attenuatis flavo-brunneis, verruculosis, verruculis haud raro in strias dispositis, 30-44 \times 14-20; pedicello hyalino deciduo.

Hab. in foliis pedicellis petiolisque *Parryæ* (Matthioliæ) monocarpæ et *P. pinnatifoliæ*, Nowaja-Semlja, Bering et in Turkestan.

363. *Puccinia Cortusæ* Tranzsch. in Sydow, Mon. Ured. I, p. 886. 1291

— Maculis inferne nullis superne lutescenti-brunneolis, rotundatis 1-2 mm. diam., teleutosoris hypophyllis rarius epiphyllis pulverulentis atro-fuscis, teleutosporis ellipsoideis utrinque rotundatis non incrassatis, medio vix constrictis, brunneis, levibus, $22-36 \approx 15-21$, poris germinativis papillulis hyalinis tectis, superiori vulgo apicali, inferiori ad septum posito; pedicello hyalino fragili caduco.

Hab. in foliis Cortusæ Matthioli in jugo Alaico Turkestanæ (W. TRANZSCHEL).

364. **Puccinia Myosotidis** Tranzsch. in Sydow, Mon. Ured. I, p. 880. 1292

— Teleutosoris hypophyllis v. etiam amphigenis et cauliculis, maculis flavidis insidentibus, minutis, sed in greges magnos rotundatos v. elongatos usque 1 cm. longos dense dispositis et demum in crustam omnino confluentibus, epidermide tectis, atris, compactis; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. truncatis, rarius acutiusculis, vix v. leniter incrassatis (usque 4 μ .), medio vix leniter constrictis, basi attenuatis, levibus, brunneis, apice castaneo-brunneis, $40-64 \approx 14-22$; pedicello brunneo, persistenti, brevissimo; mesosporis solitariis minutis.

Hab. in foliis caulibusque Myosotidis silvaticæ Inkeschtam Turkestanæ (TRANZSCHEL).

365. **Puccinia Penningtonii** Syd. Monogr. Ured. I, p. 875. — Teleu. 1293

tosoris amphigenis, maculis nullis, sparsis; punctiformibus, 0,2-0,5 mm. diam., pulverulentis, atris; uredosporis immixtis subglobosis v. oblongo-ellipsoideis, aculeatis, flavis, $27-42 \approx 24-31$; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non v. vix incrassatis, medio non v. vix constrictis, verrucosis, læte castaneo-brunneis, $38-56 \approx 25-30$; pedicello hyalino, crasse inflato, usque 40 μ . deorsum sæpe napiformi, toto usque 85 μ . longo.

Hab. in foliis Grabowskiae duplicatæ, San Fernando Argentinae (M. Sc. PENNINGTON).

366. **Puccinia nocticolor** Holw. Ann. Mycol. 1904, p. 391. — Æci. 1294

diis in maculis flavis sæpius hypophyllis, circinantibus v. nervisequis; pseudoperidiis haud reflexis, 1-2 mm. long.; æcidiosporis globoso-angulosis, raro oblongis, $24-34 \approx 16-24$, minute tuberculatis; cellulis pseudoperidii $40-56 \approx 24-40$, membrana 8-12 μ . cr., fortiter tuberculata; teleutosoris nigris, pulvereis, vulgo epiphyllis, æcidiis contraposis, epidermide rupta cinctis, sæpe confluentibus; teleutosporis oblongis, atro-brunneis, opacis, leviter constrictis, papilla apicali 12 μ . longa terminatis, $60-80 \approx 28-40$, grosse verrucosis; pedicello sursum colorato, 160 μ . longo.

Hab. in foliis *Ipomœæ intropilosæ*, *I. murucoidis* et *I. sp.* in pluribus locis Mexici.

367. *Puccinia rubicunda* Holw. Ann. Mycol. 1904, p. 392. — *Æcidiiis* 1295
amphigenis, minutissimis, sparsis, pseudoperidio non reflexo; æcidiosporis globosis, globoso-angulosis, rarius ellipsoideis, plano-tuberculatis 22-28 \times 20-24; cellulis pseudoperidii 28-40 \times 12-16 membrana 2-4 μ . cr.; teleutosoris epiphyllis, minutis, nigris, pulverulentis, vulgo circinantibus circa æcidia, subinde sparsis; teleutosporis tuberculatis, atro-rufobrunneis, ellipsoideo-oblongis, apice rotundatis, non incrassatis, 44-56 \times 24-28; pedicello sursum dilute colorato, usque 70 μ . longo.

Hab. in foliis *Ipomœæ sp.* (an *I. intropilosæ*?) pr. Vera Cruz, Mexico.

368. *Puccinia insignis* Holw. Ann. Mycol. 1904, p. 392. — Teleu- 1296
tosoris in maculis flavis epiphyllis, in soros 3-4 mm. diam. aggregatis, non confluentibus, epidermide cinctis; teleutosporis cinnamomeo-brunneis ellipsoideo-oblongis, apice papilla conica flavobrunnea usque 16 μ . longa terminatis, minute striato tuberculatis 68-80 \times 32-40; pedicello hyalino crasso usque 80 μ . longo.

Hab. in foliis *Ipomœæ sp.* Cuernavaca, Mexico.

369. *Puccinia superflua* Holw. Ann. Mycol. 1904, p. 392. — Teleu- 1297
tosoris amphigenis, minutis, in maculis flavis, parvis insertis, nigris, pulverulentis; teleutosporis rufo-brunneis, plano-tuberculatis, late ellipsoideis, rarius oblongis, 44-68 \times 28-36, cellula superiore rotundata, apice breviter conico-papillata; pedicello sursum colorato, subinde lateraliter inserto, usque 80 μ . longo.

Hab. in foliis *Ipomœæ murucoidis*, Iguata, Guerrero, Mexico.

370. *Puccinia Cupheæ* Holw. Ann. Mycol. 1904, pag. 393. — Te- 1298
leutosoris atro-brunneis, in maculis rubris vel flavis, plerumque hypophyllis, sparsis vel circinatis, in soros minutos sæpe confluentes dispositis; teleutosporis ellipsoideo-clavatis levibus flavobrunneis, 37-48 \times 15-19, ad septum constrictis, cellula superiori vulgo rotundata, rarius acuta, inferiori in pedicellum tenuata; pedicello hyalino, vel leviter colorato, sporam dimidiam subaequante.

Hab. in foliis *Cupheæ procumbentis* et *Cuph. sp.* in Valle Mexici.

371. *Puccinia jaliscensis* Holw. Ann. Mycol. 1904, p. 393. — Soris 1299
perexiguus, in maculis rubris vel flavis, vulgo hypophyllis, in

greges 5 mm. diam. dispositis, subinde confluentibus, singulis 1 mm. diam. epidermide rupta cinctis; teleutosporis oblongo-clavatis vel linearibus, apice acutis v. rotundatis, ochroleucis, levibus, 44-74 \times 15-19, cellula inferiori in pedicellum tenuata; membrana 4-8 μ . crassa; pedicello colorato 45 μ . longo.

Hab. in foliis Cupheæ Hookerianæ, C. cyanæ, C. squamuliferæ, C. nitidulæ, Jalisco, Oaxaca, Jalapa, Guernavaca Mexici.

372. **Puccinia Asperulæ-cynanchicæ** Wurth, Centralbl. f. Bakt. II, 1900 Abt. XII, 1904, p. 814 (absque diagnosi); *P. Asperulæ* Fuck. p. p.

Hab. in foliis Asperulæ cynanchicæ, Bern Helvetiæ. — Forma biologica.

373. **Puccinia Galii-silvatici** (Oth in herb.) Wurth, Centralbl. f. Bakt. 1901 II, Abt., XII, 1904, p. 714 (absque diagnosi).

Hab. in foliis Galii silvatici, Bern Helvetiæ. — Forma biologica.

374. **Puccinia Asperulæ-odoratæ** Wurth, Centralbl. f. Bakt. II, Abt. 1902 XII, 1904, p. 714 (absque diagnosi), *P. Asperulæ* Fuck. p. p.

Hab. in foliis Asperulæ odoratæ, Bern Helvetiæ. — Forma biologica.

375. **Puccinia orbiculata** Sydow, Mon. Ured. I, p. 396. — Teleo- 1903
soris hypophyllis, maculiculis, exacte in circulum 4-7 mm. dispositis confluentibusque, compactis, obscure brunneis; teleutosporis ellipsoideis utrinque rotundatis apice non incrassatis, medio non v. vix constrictis, brevibus, brunneis, 22-32 \times 17-22, episporio 4 μ . cr.; pedicello hyalino tenui subinde oblique inserto sporam subæquante; mesosporis interdum paucis immixtis.

Hab. in foliis Trymatococci africanæ in M. Bomole Africæ trop. or. (A. KABASEK).

376. **Puccinia Commelinæ** Holw. Ann. Mycol. 1904, p. 393. — Ma. 1904
culis flavis vel demum brunneis, irregularibus; uredosoris hypophyllis, sparsis, brunneis, epidermide rupta cinctis; uredosporis globoso-ovoideis, pallide brunneis, echinulatis 24-32 \times 24-28, poris germinativis 2; teleutosoris hypophyllis compactis, punctiformibus, sparsis, vulgo in parvos greges dispositis, brunneis; teleutosporis paraphysibus brunneis cinctis, constrictis, levibus, oblongo-clavatis, linearibus, arcuatis, sursum acutis vel truncatis vel rotundatis 44-68 \times 16-24, brunneis, apice quandoque, lateraliter acute apiculatis; pedicello brevi, brunneo, rarius hyalino.

Hab. in foliis Commelinæ sp. Guadalajara, Oaxaca, Chapala, Cuernavaca, Morelos, Jalapa Mexici.

377. **Puccinia Penniseti** Zimm. Berichte üb. Land und Forstwirth. 1305
Deutsch. Ostafrika, 1904, I, p. 16, t. I, f. 5. — Maculis longitudinalibus, flavis, demum atro-brunneis; teleutosoris atris in centro macularum; uredosporis versiformibus ovato-piriformibus, verruculosus, 33-38 \times 23-30; pedicello hyalino 25 \times 5; poris germinativis quaternis æquatorialibus; teleutosporis oblongo-clavatis, apice rotundatis, constricto-1-septatis, 40-60 \times 16-20; pedicello hyalino, brevissimo 6-9 μ . cr.; paraphysibus nullis; poris germinativis nullis visis.

Hab. in foliis et culmis Penniseti spicati, Amani in Africa orient. — *A. Pucc. purpurea* et *P. Maydis* præsertim pedicello brevissimo dignoscenda. Quoad *P. Penniseti* Barel. Journ. Asiat. Soc. Beng. 1891, pag. 215, cfr. Syd. Monogr. Ured. I, p. 804.

378. **Puccinia Arthuri** Sydow Mon. Ured. I, 775. — Uredosoris amphigenis minutis subrotundis, tectis flavo-ferrugineis; uredosporis subglobosis echinulatis, flavo-brunneis 22-32 \times 20-25, soris germin. 4 æquatorialibus; teleutosoris vulgo oblongis, 1 mm. long., tectis tandem erumpentibus, atris; teleutosporis ovato-oblongis vel oblongo-clavatis apice rotundatis leniterque incrassatis 3-6 μ ., medio subconstrictis, basi rotundatis v. tenuatis, levibus, brunneis, 28-45 \times 16-24; pedicello hyalino v. flavidulo persistenti, crasso, usque 100 μ . longo.

Hab. in foliis Penniseti mexicani, Mexico (HOLWAY).

379. **Puccinia Rottboelliae** Sydow, Mon. Ured. I, p. 800, tab. XLII, 1307
fig. 545. — Teleutosoris subsparsis oblongis vel linearibus 0,5-3 mm. long., epidermide fissa cinctis, atris; teleutosporis ellipsoideo-oblongis, apice rotundatis subincrassatis usque 10 μ ., medio vix constrictis basi rotundatis, levibus, brunneis, 34-54 \times 22-27; pedicello hyalino persistenti crassiusculo, usque 120 μ . longo, sæpe lateraliter inserto.

Hab. in foliis Rottboelliae arundinaceæ in valle Mai Mezzanæ Abyssiniæ (SCHIMPER).

380. **Puccinia luxuriosa** Sydow, Mon. Ured. I, p. 812, tab. XLII, 1308
fig. 548, *P. tosta* v. *luxurians* Arth. Bull. Torr. Cl. 1902, p. 229. — Teleutosoris amphigenis, subsparsis sæpe striiformibus, usque 6 mm. long., atris; uredosporis immixtis subglobosis, verrucoso-echinulatis, flavo-brunneis, 22-30 μ . diam., poris germin. 6 instru-

ctis, ca. 2 μ . cr.; teleutosporis ellipsoideo-oblongis, apice rotundatis, incrassatis usque 10 μ ., medio subconstrictis, basi sæpius rotundatis, levibus, brunneis, 36-56 \approx 20-28; pedicello apice brunneolo, persistenti, crasso, usque 110 μ . longo.

Hab. in foliis Sporoboli airoidis, Oregon et Montana Amer. bor.

381. *Puccinia Actinellæ* (Webb.) Syd. Mon. Ured. vol. I, p. 4, 1902.

Ita vocanda *Puccinia Tanacetii* D. C. var. *Actinellæ* Webb. Rep. Nebraska 1889 et Sacc. Syll. IX, p. 302.

382. *Puccinia Gnaphalii* (Speg.) Henn. in Hedw. 1902, p. (66), *Uredo Gnaphalii* Speg. — Syll. VII, pag. 849. — Huc ducenda est *P. gnaphalicola* Henn. — Syll. XVI, p. 295.

383. *Puccinia Mac-Alpini* Syd. Mon. Ured. vol. I, p. 100. Ita dicenda *P. Hypochaeridis* Mc. Alp. in Roy. Soc. Victoria 1894, p. 217 et Sacc. — Syll. XIV, p. 310, nec Oud.

384. *Puccinia nigrescens* Kirehn. in Lotos 1856, p. 182, Syd. Mon. Ured. vol. I, p. 288. Ita vocanda *Pucc. obtusa* Schroet. in Abh. Schl. Ges. 1869, p. 13. — Sacc. Syll. VII, p. 604.

385. *Puccinia Giberti* Speg., Sacc. Syll. VII, p. 653, *Puccinia Hyptidis* (Curt.) Tracy et Earle in Bull. Missip. Agr. Exper. Stat. XXXIV, 1895, p. 86. Status æcidialis est *Æcidium tucumanense* Speg. — Sacc. Syll. VII, p. 816, *Æcidium Hyptidis* P. Henn. — Sacc. Syll. XIV, p. 385.

386. *Puccinia Salviæ-lanceolatae* Bubák in Syd. Mon. Ured. vol. I, p. 294, tab. XX, f. 280, *Puccinia nigrescens* Peck in Bot. Gaz. 1878, p. 35, Sacc. — Syll. VII, p. 720, nec Kirchn.

387. *Puccinia constricta* (Lag.) Bubák in Centralbl. f. Bakter. 1902, IX, p. 919. Ita vocanda *P. Schneideri* var. *constricta* Lagh. — Syll. IX, p. 302.

388. *Puccinia Porteri* Peck in Th. C. Porter and John M. Coulter Synop. of the Fl. of Colorado 1874, p. 164, Syd. Mon. Ured. vol. I, p. 258. Huc ducenda *Pucc. albulensis* P. Magn. in Ber. Deuts. Bot. Ges. 1890, p. 169, Sacc. Syll. IX, p. 300.

389. *Puccinia Veronicæ* Schröt., Syd. Monogr. Ured. I, p. 256. Ita vocanda est *Pucc. Veronicæ* (Schum.) Wint., nam exempl. orig. Schumacheri *Uredinis Veronicæ* nullam Uredineam præbent.

390. *Puccinia Lobeliæ* Grev. Bull. Buff. Soc. Nat. Sc. I. p. 66 (1873) Syd. Mon. Ured. vol. I, p. 195. Huc spectat *Puccinia microsperma* B. et C. in Grev. III, p. 55 et Sacc. Syll. VII, p. 713.

391. *Puccinia phlyctopus* Syd. Mon. Ured. vol. I, p. 242, tab. XVI,

- fig. 225, *Pucc. Amphilophii* Diet. et Holw. in Bot. Gaz. XXV, 1897, p. 30, Sacc. Syll. XIV, p. 326. — Matrix est *Pithecoctenium hexagonum*, nec *Amphilophium*; nomen specificum ergo corrigendum erat.
392. *Puccinia Toumeyii* Sacc. et Syd. (= *P. circinans* Ell. et Ev. nec Diet.). — Syll. XVI, pag. 299, 1902 (Febr.). Huc ducenda est *P. Chasmatis* Ell. et Ev. in Journ. of Mycol. vol. 8, p. 15, 1902 (Majo).
393. *Puccinia novo-zelandica* Bubák in Sitz. Kgl. böhm. Ges. Wiss. Prag 1901, p. 5 (extr.). Ita vocanda *Pucc. compacta* Berk. in Fl. Nov. Zeal. II, p. 195 et Sacc. Syll. IX, p. 309, non Kunze.
394. *Puccinia Schweinfurthii* (P. Henn.) Magn. in Ber. Deutsch. Bot. Ges. 1892, p. 44, Syd. Mon. Ured. vol. I, fasc. III, p. 449. Huc ducenda, teste Magn. *Rostrupia Schweinfurthii* P. Henn., Sacc. Syll. XI, p. 208.
395. *Puccinia gregaria* Kunze in Weigelt exsicc. 1827, Syd. Mon. Ured. vol. I, fasc. III, pag. 520. Huc ducendæ sunt *Dasyspora foveolata* Berk. et Curt. — Syll. IX, p. 314 et XI, pag. 205 et *Pucc. Winteri* Pazschke — Syll. IX, p. 300.
396. *Puccinia acuminata* Peck in 23 Rep. State Bot. Mus. New York 1872, p. 57, nec Fuck. Ita vocanda *Pucc. porphyrogenita* Curt. in Thuem. Myc. un. n. 545, Sacc. Syll. VII, p. 703.
397. *Puccinia Ribis* DC. — Syll. VII, pag. 679. — Huc ducenda *Pucc. Acerum* Link ex errore matricis orta.
398. *Puccinia Mariæ-Wilsoni* Clint. — Syll. VII, p. 673. — *Pucc. claytoniata* Syd. Monogr. Ured. I, p. 561. Huc spectat *Æcidium claytoniatum* Schw. 1834.
399. *Puccinia Thuemeniana* Voss. — Sacc. Syll. VII, p. 618. — Status æcidiosp. est *Æcidium involvens* Voss.
400. *Puccinia Arenariæ* (Schum.) Schröt. — Syll. VII, p. 683. Huc spectat *Pucc. circinans* Fuck. *Campanulæ Trachelio* falso attributa.
401. *Puccinia solitaria* Syd. Mon. Ured. vol. I, fasc. III, pag. 483. Sic denominanda *P. simplex* Peck — Syll. VII, p. 698, nec Körn.
402. *Puccinia ægra* Grove — Sacc. Syll. VII, p. 614. — Status æcidiosporus est *Æcidium depauperans* Vize.
403. *Puccinia asiatica* (Kom.) Syd. Mon. Ured. vol. I, fasc. III, pag. 499. Ita vocanda *P. Heucherae* (Schw.) Diet. var. *asiatica* Kom. — Sacc. Syll. XVI, p. 286.
404. *Puccinia curtipes* Howe in Bull. Torr. Bot. Club. 1874, p. 3. — Syll. VII, p. 619. Huc ducenda sunt, teste Sydow Mon. Ured.

- vol. I, fasc. III, pag. 501, *P. Saxifragæ* Schlecht. var. *curtipes* Diet. et *P. striata* Cooke. — Syll. VII, p. 734.
405. **Puccinia Heucherae** (Schw.) Diet. in Ber. Deutsch. Bot. Ges. 1891, p. 42, Syd. Mon. Ured. vol. I, pag. 497, *Uredo Heucherae* Schw. Syn. Fg. Carol. p. 71 (1822). — Huc ducendæ *P. Tiarella* B. et C. — Sacc. Syll. VII, p. 701 —, *P. sprete* Peck — Syll. VII, p. 701, *P. congregata* Harkn. — Syll. VII, p. 702.
406. **Puccinia Astrantiae** Kalchbr. Verz. Zipser Schwämme in Mitt. d. Ung. Akad. du Wissensch. Pest. Bd. III, 1865, p. 309, Syd. Mon. Ured. vol. I, p. 361. Huc ducenda *Pucc. astrantiicola* Bubák in Sity. Kgl. böhm. Ges. Wiss. 1900, n. XXVI, Sacc. Syll. XVI, p. 285.
407. **Puccinia Falcariæ** (Pers.) Fuck. Symb. Myc. 1869, p. 52, Syd. Mon. Ured. vol. I, p. 380. Ita vocanda *Pucc. Sii-Falcariæ* (Pers.) Schroet. Sacc. Syll. VII, p. 666.
408. **Puccinia bullata** (Pers.) Schröt. — Syll. VII, pag. 634. Huc spectat *P. Castagnei* Schröt., quæ non in *Thalictro* sed in *Silao pratensi* provenit, teste cl. Tranzs. Ann. mycol. 1904, p. 158.
409. **Puccinia Eryngii** DC. Encyl. VIII, p. 249 (1808) et Fl. franc. VI, p. 58, Syd. Mon. Ured. vol. I, pag. 379. Ita vocanda *Puccinia Pimpinellæ* (Str.) Lk. var. *Eryngii* Wint. — Sacc. Syll. VII, p. 616-17.
410. **Puccinia tumida** Grev. Fl. Edinb. p. 430 (1824). Ita vocanda *Puccinia isoderma* Lindr. — Sacc. Syll. XVI, p. 284.
411. **Puccinia Peucedani-parisiensis** (DC.) Lindr. in Acta Soc. pro Fauna et Fl. fenn. XXII, I, pag. 79 (1902), *P. Umbelliferarum* var. *Peucedani-parisiensis* DC. Huc ducendæ sunt *Pucc. rugulosa* Tranzsch. — Sacc. Syll. XI, p. 187 — et *P. auloderma* Lindr. — Syll. XVI, p. 282.
412. **Puccinia Bupleuri-falcati** (DC.) Wint. Pilze 1884, p. 212. Huc spectant *Puccinia Bupleuri* Rud. in Linnæa IV, pag. 514. Sacc. Syll. VII, pag. 610, *Uredo Bupleuri* Barel. Descript. List of the Ured. of Simla III, pag. 98, Sacc. Syll. IX, p. 332.
413. **Puccinia Bulbocastani** (Cum.) Fuck. Symb. Myc. p. 52 (1869). Ita vocanda *Puccinia Bunii* Wint. Pilze p. 197, Sacc. Syll. VII, p. 667.
414. **Puccinia punctata** Link Obs. Myc. II, p. 30, in Mag. naturf. Freunde Berlin 1816, Syd. Mon. Ured. vol. I, p. 213. Ita vocanda *Puccinia Galii* (Pers.) Schwein Syn. Carol. p. 73 et Sacc. Syll. VII, p. 600.

415. **Puccinia Morreniæ** (Speg.) Syd. Mon. Ured. vol. I, p. 332. Ita vocanda *Pucc. Araujæ* Lv. var. *Morreniæ* Speg. in Fung. Argent. novi v. crit. 1899, p. 226. — Sacc. Syll. XVI, pag. 305.
416. **Puccinia Mühlenbeckiæ** (Cooke) Syd. Mon. Ured. vol. I, fasc. III, p. 566. Ita vocanda *P. Rumicis scutati* (DC.) Wint. var. *Mühlenbeckiæ* Cooke — Syll. IX, p. 299.
417. **Puccinia Polygoni-amphibii** Pers. — Syll. VII, p. 636. Hujus est synonymon *Puccinia Lysimachicæ* Karst. ex errore matricis orta.
418. **Puccinia pallens** Syd. Ann. Mycol. 1903, pag. 19. Ita denominanda *P. pallida* Masee, Kew Bull. 1901, p. 168, cum exstet homonyma Tracyi (1893).
419. **Puccinia Asphodeli** Duby — Sacc. Syll. VII, p. 666. — Huc ducenda est *P. maculicola* D'Alm. et Da Cam. in Rev. agr. de Port. 1903, n. 7, p. 226, in foliis Asphodeli nec in foliis Urigineæ Scillæ ut creditur l. c. — Confer *errata-corrige* in Revista agronomica de Portugal, 1903, n. 12, pag. 393.
420. **Puccinia Rossiana** (Sacc.) Lagh. in Bol. Soc. Brot. 1890, VIII, p. 137. Ita nominanda *P. Liliacearum* Duby var. *Rossiana* Sacc. Syll. VII, p. 668, *P. Scillæ* Linh. — Syll. VII, pag. 735: cfr. Syd. Mon. Ured. I, 1903, p. 631, tab. XXXV, fig. 470.
421. **Puccinia Buchloës** (Webb.) Syd. Mon. Ured. I, 1903, p. 740. Huc ducenda est *P. vexans* Earl. var. *Buchloës* Webb. — Syll. IX, p. 308.
422. **Puccinia purpurea** Cooke — Syll. VII, p. 657. — Quoad illustrationem et synonymiam cfr. W. Busse in Berichte Deutsch. Bot. Gesell. 1932, p. 283, c. tabula.
423. **Puccinia tatarica** Tranzsch. ap. Syd. Monogr. Ured. I, p. 864. Ita vocandus, test. Tranzsch. et Syd. l. c., *Uromyces Mulgedii* Lindr. (vide supra pag. 244), nam typus teleutosporas biloculares numerosissimas, ellipsoideas, non v. vix constrictas, læte brunneas, 30-40 × 18-26, intermixtis mesosporis, gignit.

Hab. in foliis caulibusque *Mulgedii tatarici*, Tibet.

DIORCHIDIUM Kalchbr. — Syll. VII p. 736, IX p. 314, XIV p. 359, XVI p. 313.

1. **Diorchidium manaosense** P. Henn. Fungi Amaz. I, p. 159 (Hedw. 1904). — Maculis fusco-ferrugineis, bullatis, rotundatis vel confluentibus; soris rotundato-congestis, fusco-cinnamomeis, plerumque zona incrassata atra circumdatis, hypophyllis vel pedunculiculis effusis; teleutosporis plerumque diorchidiis, verticale 1-septatis, 25-

30 μ . longis, 30-40 μ . latis, interdum horizontaliter septatis, cellulis subglobosis valde constrictis, episporio crasso, castaneo verrucoso, verrucis papilliformibus, hyalino-fusculis, 3-4 μ . diam.; stipite ca. 10-15 \times 6-8, hyalino, fuscido.

Hab. in foliis caulibusque *Lonchocarp*i rariflori, Rio Negro, Manaos, Amer. merid. — Affine *D. Piptadeniæ* Diet.

2. *Diorchidium leve* Sacc. et Bizz. — Syll. VII, p. 377. — *Puccinia levis* (Sacc. et Bizz.) P. Magn. in Ber. Deutsch. Bot. Ges. 1891, Bd. IX, p. 190; Syd. Mon. Ured. I, p. 759. — Soris uredosporiferis amphigenis, maculis flavidis v. rufo-flavis, indeterminatis, insidentibus, sparsis, minutis, punctiformibus, rotundatis v. oblongis, epidermide diu tectis, pulverulentis, flavo-brunneis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis 24-30 μ . diam. v. 24-30 \times 17-24, poris germinationis binis instructis; soris teleutosporiferis amphigenis, sparsis, rotundatis v. ovatis 0,5-1 mm. diam., epidermide fissa cinctis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, episporio superne valde incrassato, usque 10 μ ., ad septum constrictis, septo plerumque verticali vel obliquo, raro horizontali instructis, levibus, brunneis, 32-40 \times 24-38; pedicello hyalino, persistenti, crasso, usque 150 μ . longo.

Hab. in foliis vivis *Manisuris* granularis in Brasilia, Columbia, Portorico, Martinica, Guadalupa. — Teleutosporæ præque longitrorsum septatæ hinc species in gen. *Diorchidio* servanda est.

STICHOPSORA Diet. — Syll. XVI p. 318.

1. *Stichopsora Mentzeliae* Diet. et Holw. in Bot. Gaz. 1901, n. 5, 1310 p. 337, et Hedw. 1901, p. (61). — Soris hypophyllis, sparsis, parvis, uredosporiferis luteo-aurantiacis, in sicco albis; uredosporis breve catenulatis 20-28 \times 20-24, episporio verrucoso hyalino præditis; soris teleutosporiferis viscidis, sanguineo-rubris 100-120 μ . diam.; teleutosporis seriatis, cylindrico-clavatis vel ellipsoideis 24-45 \times 14-20 initio 1-cellularibus, dein 1-septatis; episporio usque 8 μ . crasso; sporidiolis ellipticis utrinque subconicis, 15 \times 10-13.

Hab. in foliis *Mentzeliae* hispidæ, Chapala Mexico.

2. *Stichopsora Madiæ* (Cke.) Syd. Ann. Mycol. 1904, p. 30. Huc duendum *Coleosporium Madiæ* Cooke — Syll. VII, p. 758.

GYMNOCONIA Lagerh. — Syll. XIV p. 360, XVI p. 314.

1. *Gymnoconia Riddelliae* Griffiths in Bull. of the Torr. Bot. Club. 1902, 1311 pag. 296, fig. 6. — Pycnidiis hypophyllis, sparsis, prominenti-

bus, aurantiaco-luteis; sporidiis globulosis, hyalinis, 2-3 μ . diam.; æcidiis amphigenis, sparsis, circularibus, ovalibus, irregularibus v. confluentibus, in areis latis lilacino-purpureis, in sicco brunneo-marginatis; æcidiosporis globosis vel subovatis 7-8 μ . diam., episporio levi, tenui; soris uredosporiferis amphigenis, circularibus, 0,5 mm. diam., subepidermicis, maculas minutas albidas formantibus; uredosporis subglobosis vel angulosis, 26-29 \times 20-24, pallide brunneis, episporio tenui, minute tuberculato donatis; soris teleutosporiferis amphigenis, nigris, erumpentibus; teleutosporis cuneato-ellipticis, 38-50 \times 20-24 superne rotundatis vel obtusis, ad septum constrictis, episporio levi superne crassiusculo; pedicello hyalino, persistenti, sporâ duplo triplove longiore.

Hab. in foliis caulibusque *Riddelliæ Cooperi*, Tucson, Arizona, Amer. bor.

SCHIZOSPORA P. Diet. — Syll. XIV p. 361.

1. **Schizospora Anthocleistæ** P. Henn. Engl. Bot. Jahrb. 1903, p. 41.

— Maculis rotundatis, fuscis dein exaridis; pycnidiiis lageniformibus, ca. 250 μ . longis; pseudoperidiis rotundato-dispositis, epiphyllis, utrinque primo subhemisphaericis, clausis, flavo-fuscidulis, dein cupulato-apertis, contextu pseudoperidii cellulis oblongis, subclavatis v. subfusoides, ca. 60 \times 20, hyalino-fuscidulis, reticulatis; teleutosporis ellipsoideis vel ovoideis, 15-22 \times 13-18, continuis, sed plerumque oblongis, subfusoides, utrinque attenuatis obtusis, medio 1-septatis, constrictis, mox secedentibus, 40-60 \times 16-20, episporio hyalino, subfuscidulo, granulato, haud pedicellatis catenulatisque.

Hab. in foliis *Anthocleistæ orientalis*, Ost-Usambara Africæ orient. (ZIMMERMANN).

Sect. 3. Phragmosporæ.

CHRYSOMYXA Ung. — Syll. VII p. 759, IX p. 317, XI p. 209, XII p. 319.

1. **Chrysomyxa Menziesiæ** Diet. in Bot. Jahrb. 1903, p. 627. — Soris in maculis fuscis hypophyllis, gregariis, irregulariter confluentibus et haud raro magnam partem paginæ inferioris tegentibus, exsiccatis albidis, pulvinatis, cellulis teleutosporarum 18-35 \times 12-19.

Hab. in foliis *Menziesiæ pentandræ*, Nikko Japoniæ (KUSANO).

2. **Chrysomyxa albida** Kühn — Sacc. Syll. VII, pag. 461 et Notæ Mycol. in Syd. Ann. mycologic. 1903, n. 1, p. 24. *Torula Ure-*

dinis (Link?) Fr., Sacc. Mycoth. Ven. n. 359! (1874), *Oidium Uredinis* Link Sp. pl. Fungi p. 123 [?], *Oospora Uredinis* (Link?) Sacc. — Syll. IV, p. 16!

Hab. quoque in pag. inf. foliorum Rubi fruticosi var., Montello Italiae borealis, ubi jam legeram anno 1874! et 1903 (D. Sacc. Myc. ital. n. 1105). — Adsunt uredosporæ et teleutosporæ. Incertum, an species Linkiana huc spectet, quod tamen maxime probabile. Præter Germaniam, Italia tantum videtur hucusque speciem alere.

3. **Chrysomyxa Cassandrae** (Gobi) Tranz. ap. Lindr. Mycol. Mitteil. V-X, p. 3, 1902 (Act. Soc. Fenn.), *Uredo Cassandrae* Gobi. — Syll. VII, p. 844. — Teleutosoris perexiguus, 130-160 μ . diam., subaurantiis, hypophyllis; mycelio hyalino; teleutosporis hyalinis, initio 1-cellularibus, tandem 3-4-cellularibus, 60-70 μ . long., cellulis globoso-quadrangularibus 15-25 \times 11-16; sporidiolis subglobosis, 4,5 μ . diam., sterigmatibus clavatis, 22 \approx 4-5 (Lindroth l. c.).

Hab. in foliis Cassandrae calyculatae, Karelia Rossiae.

4. **Chrysomyxa Woronini** Tranzsch. in Centralbl. f. Bakter. n. Pa- 1314 rass. 1903, II Abt., Bd. XI, p. 106. (Absque diagnosi).

Hab. in foliis Ledi palustris in Rossia.

COLEOSPORIUM Lév. Syll. VII p. 751, IX p. 317, XI p. 208, XIV p. 362, XVI p. 316.

1. **Coleosporium thomeense** P. Henn. in Bot. Ergebn. der Kunene 1315 Sambesi Expedit. p. 158 (1902). — Maculis flavo-fusculis; soris uredosporiferis hypophyllis sparsis, pulvinatis, epidermide pallida fissa tectis; uredosporis ovoideis vel ellipsoideis, intus flavo-fusculis, 30-35 \times 16-19, episporio aculeato-verrucoso; soris teleutosporiferis sparsis vel gregariis hypophyllis, ceraceis flavo-aurantiacis, discoideo-applanatis, rotundato-angulatis, ca. 0,6 mm. diam.; teleutosporis clavatis, curvulis, primo continuis, intus flavo-brunneis, dein 3-septatis, 60-75 \times 17-20, apice rotundato-incrassatis; promycelio filiformi, sporidiolis ellipsoideis hyalinis.

Hab. in foliis Vernoniae spec. in insula S. Thomè Africae Austr.

2. **Coleosporium Verbesinae** Diet. et Holw. in Bot. Gaz. 1901, p. 337. 1316 — Soris sparsis v. in greges irregulares congestis, hypophyllis; uredosporiferis luteo-aurantiacis, teleutosporiferis pallide rubris; uredosporis elliptico-globosis, 26-33 \times 23-26, episporio verrucoso hyalino donatis; teleutosporis cylindraceis, 130 \approx 12-18, apice conicis.

Hab. in foliis *Verbesinæ virgatæ*, Rio Hondo cañon, pr. urbem Mexico et Cuernavaca in Mexico.

3. *Coleosporium anceps* Diet. et Holw. in Bot. Gaz. 1901, p. 337. 1317

— Soris uredosporiferis punctatis, sparsis vel in greges circulares dispositis, hypophyllis, in sicco albidis; uredosporis ellipsoideis, oblongis vel globosis, $17-25 \approx 15-20$, tuberculis longe cylindraceis donatis; soris teleutosporiferis hypophyllis in maculis luteo-brunneis, in greges irregulares v. circulares dispositis, melleis, viscosis; teleutosporis cylindraceo-clavatis, $90 \approx 18-25$ 4-cellularibus; pedicello $60-70 \mu$. longo; sporidiolis subcylindraceis, $24-30 \approx 12-15$.

Hab. in foliis *Verbesinæ sphærocephalæ*, Chapala, Mexico. 1318

4. *Coleosporium paraphysatum* Diet. et Holw. in Bot. Gaz. 1901, p. 337. — Soris hypophyllis in maculis luteis vel pallide brunneis, parvulis, sparsis; uredosporis oblongo-ellipsoideis v. clavatis, sparse verrucosis, $26-43 \approx 17-24$; teleutosporis diu ellipsoideis continuis, dein cylindraceo-clavatis, 1-septatis, $45-65 \approx 17-22$; paraphysibus filiformibus.

Hab. in foliis *Liabi discoloris*, Chapala, Mexico.

5. *Coleosporium Plumieræ* Pat. Champ. de la Guadeloupe ser. III, in 1319

Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Maculis amphigenis, sparsis vel confluentibus, subrotundis vel angulosis, rubris, 1-3 mm. diam.; soris uredosporiferis hypophyllis, convexis, luteis, $350-500 \mu$. diam., initio velatis dein erumpentibus, pulverulentis; uredosporis breve catenulatis, rotundatis, ovoideis, angulosis, minute verruculosis, $30-40 \approx 20-30$, episporio hyalino, luteolis; soris teleutosporiferis luteo-aurantiacis, minoribus; teleutosporis aurantiacis, superne obtusis, inferne attenuatis transverse 3-septatis $60-85 \approx 20$.

Hab. in pag. inf. foliorum *Plumieræ albæ*, Guadalupe Americæ sept.

6. *Coleosporium Actææ* Karst. Fungi nov. Loennb. 1904, p. 6 (Fin- 1320

ska Vetensk. Soc.). — Soris uredosporiferis hypophyllis, minutis, rotundatis vel irregularibus, sparsis vel sæpius in parvos greges congestis, haud raro confluentibus, flavo-rufis; uredosporis in eodem soro difformibus, breviter catenulatis, mox secedentibus rotundatis vel oblongato-clavatis, subinde angulatis, aurantio-flavis.

Hab. in foliis *Actææ rubræ* in regione Baicalensi (O. A. F. LÖNNBOHM).

7. *Coleosporium Campanulæ* (Pers.) Lév. — Syll. VII, p. 753. Huc

spectat *Cæoma Moroti* Poir. et Har. in *Campanula rotundifolia* nec *Cardamine* lectum. Cfr. Tranzs. Ann. Mycol. 1904, p. 157.

PHRAGMIDIUM Link — Syll. VII p. 742, IF p. 315, XI pag. 206, XIV p. 809, XVI p. 779, 1150.

1. **Phragmidium occidentale** Arthur, Plantæ Bakerianæ, fasc. II fungi 1321
p. 3. — Maculis pallide luteolis; æcidiiis hypophyllis, rotundatis 1 mm. diam.; æcidiosporis concatenatis, aurantiacis, rotundato-ellipticis, 24-30 \times 19-24; paraphysibus curvulis, hyalinis; soris uredosporiferis et teleutosporiferis gregariis; uredosporis obovatis, echinulatis, superne minime papillatis, 18-22 \times 26-28; teleutosporis cylindræis, fere nigris, 5-7-septatis, tuberculatis, 85-110 μ . longis, apice rotundatis, superne papilla conica subhyalina donatis; pedicello teleutospora longiore inferne incrassato subhyalino.

Hab. in foliis Rubi Nutkani prope Pagosa Peak, Sonth Colorado Amer. bor.

2. **Phragmidium heterosporum** Diet. in Bot. Jahrb. 1903, p. 626. — 1322
Soris hypophyllis, sparsis, minutis; uredosporiferis aureis, teleutosporiferis nigris vel griseis; uredosporis clavatis vel piriformibus, 25-44 \times 11-17, episporio incolorato asperulo indutis, paraphysibus arcuatis circumdatis; teleutosporis plerumque bi-usque quadrilocularibus, ad septa constrictis 57-90 \times 21-25, episporio levi, sordide brunneo indutis, maturis statim germinantibus; pedicello usque 60 μ . longo, interdum inflato suffultis vel sine pedicello.

Hab. in foliis Rubi trifidi, Ito in prov. Izu Japoniæ (KUSANO).

3. **Phragmidium griseum** Diet. in Bot. Jahrb. 1902, p. 49. — Soris 1323
in maculis violaceis hypophyllis, mediocribus, sparsis vel irregulariter congestis, uredosporiferis aurantiacis, teleutosporiferis atris, mox griseis, pulvinatis; uredosporis obovatis vel rarius subglobo-sis, 21-29 \times 17-20, verruculosis, poris germinationis numerosis, magnis instructis; teleutosporis 1-4-locularibus, ad septa interdum constrictis, episporio levi, sordide brunneo, apice modice incrassato indutis, 75 \times 20-28, vertice rotundatis vel in papillam conoideam hyalinam protractis, pedicello longo crasso, firmo suffultis.

Hab. in foliis Rubi incisi, in prov. Kozuké Japoniæ (KUSANO).

4. **Phragmidium Barnardi** Plowr. et Wint. — Syll. VII, p. 746. — 1324
var. **pauciloculare** Diet. in Bot. Jahrb. 1902, p. 49. — Teleuto-sporis 3-6 plerumque 4-locularibus; cetera ut in forma typica.

Hab. In foliis Rubi parvifolii, in prov. Kozuké Japoniæ (KUSANO).

5. **Phragmidium affine** Syd. Ann. Mycol. 1904, p. 29. — Soris ure- 1325
dosporiferis hypophyllis, maculis minutis flavis 1-2 mm. diam. insidentibus, sparsis, minutis, flavis; uredosporis globosis, subglobosis vel ellipsoideis, verruculoso-echinulatis, hyalino-flavidis, 22-27 \times 18-24; soris teleutosporiferis hypophyllis, singulis interdum etiam epiphyllis, sparsis, minutis, ca. 0,8-1 mm. diam. pulverulentis, atro-brunneis; teleutosporis oblongis, typice 2-septatis, rarissime 1- vel 3-septatis, ad septa ut plurimum non constrictis, utrinque rotundatis, apice verruculoso-tuberculatis, dilute brunneis 35-50 \times 20-25, rarius 3-septatis, usque 56 μ . longis, episporio usque 3 μ . crasso; pedicello hyalino, usque 50 μ . longo, crasso, basim versus leniter attenuato.

Hab. in foliis vivis Potentillæ Blaschkeanæ, Lisson in California, Bauf in Canada, Amer. bor.

6. **Phragmidium Potentillæ-canadensis** Dietel in Hedw. 1903, p. (179). 1326
— Soris hypophyllis minutis in maculis purpureis, brunneis vel flavis; uredosporis ellipsoideis, 18-22 \times 15-17, episporio tenui verruculoso incolorato vestitis, contextu aureo; soris teleutosporiferis cinnamomeis; teleutosporis 2-4-cellularibus, clavatis v. elongato-ellipsoideis, interdum curvatis, usque 100 μ . longis, 23-34 μ . latis, superne rotundatis vel rarius conoideis, episporio flavo-brunneo vel dilute castaneo, apice plerumque modice incrassato indutis, pedicello usque 70 μ . longo suffultis.

Hab. in foliis Potentillæ canadensis in America bor.

7. **Phragmidium Andersoni** Shear in Bull. of the Torr. Bot. Club. 1327
1902, pag. 453. — Soris amphigenis, leniter pulvinatis, luteolis, sparsis abundantibusque, 200-400 μ . diam; teleutosporis oblongo-cylindraceutis, dense tuberculato-rugosis, fere nigris, 60-75 \times 32-34, bi-quatri-septatis, papilla apicali subhyalina, raro obscura, donatis; pedicello hyalino 60-105 μ . longo, fistuloso, ruguloso incrassato, 15-20 μ . crasso.

Hab. in foliis Potentillæ fruticosæ, Amer. bor.

8. **Phragmidium Ivesiæ** Syd. in Ann. Mycol. I, 1903, p. 329. — Soris 1328
uredosporiferis amphigenis, plerumque hypophyllis, maculis nullis vel indeterminatis pallescentibus insidentibus, sparsis, minutis, punctiformibus, pulverulentis, dilute brunneis; uredosporis globosis vel subglobosis, rarius ellipsoideis, echinulato-verruculosis, hyalino-flavidis, 22-27 \times 20-25, episporio ca. 2,5 μ . crasso; soris

teleutosporiferis amphigenis, eisdem maculis insidentibus, sparsis, minutis, pulverulentis, obscure brunneis; teleutosporis ellipsoideis vel oblongis, apice rotundatis, non incrassatis, basi rotundatis, typice 2-septatis, rarissime 3-septatis, ad septa ut plurimum non constrictis, apice parce et minutissime tuberculatis alibi levibus, melleis, tandem flavo-brunneis, 40-50 × 22-34 rarius usque 54 μ . longis, episporio ca. 3 μ . crasso; pedicello hyalino, usque 45 μ . longo, crasso, basim versus attenuato, in aqua tandem intumescente.

Hab. in foliis vivis Ivesiæ unguiculatæ in California (G. ENGELMANN).

PUCCINIASTRUM Otth — Syll. p. 762, IX p. 318, XIV p. 363, XVI p. 319.

1. **Pucciniastrum Castaneæ** Diet. in Hedw. 1902, p. (178). — Soris 1329 uredosporiferis hypophyllis sparsis, minimis, epidermide circumvallatis v. semitectis; uredosporis obovatis, 15-20 × 10-14, episporio hyalino echinulato donatis, paraphysibus clavatis circumvallatis; soris teleutosporiferis amphigenis subepidermicis, melleis v. cinnamomeis, parvis, sparsis vel confertis; teleutosporis 1-4 vel plurilocularibus, 21-37 μ . long., singulis cellulis 5-12 μ . latis, flavidalis, apice non incrassatis.

Hab. in foliis Castaneæ vulgaris var. japonicæ, Nikko Japoniæ (NISHIDA).

2. **Pucciniastrum Boehmeriæ** (Diet.) Syd. Ann. Mycol. 1903, p. 19, 1330 *Uredo Boehmeriæ* Diet. in Engl. Jahrb. XXVIII, p. 290 (1900). — Soris uredosporiferis hypophyllis, minutis, pallide ochraceis, pseudoperidio hemisphærico inclusis; uredosporis ovatis v. ellipsoideis, echinulatis, subhyalinis, 18-24 × 13-18; soris teleutosporiferis hypophyllis, maculis indeterminatis brunneis insidentibus, sparsis vel laxè aggregatis, subepidermicis, minutissimis, ochraceis vel ochraceo-fuscis; teleutosporis plerumque 1-4-locularibus, vario modo in cellulas divis, 18-36 × 14-20, hyalino-flavescentibus, levibus non incrassatis.

Hab. in foliis vivis Boehmeriæ bilobæ, japonicæ, spicatæ multis locis, in Japonia.

3. **Pucciniastrum Kusanoi** Diet. in Bot. Jahrb. 1903, p. 629. — Soris 1331 uredosporiferis hypophyllis sparsis, minimis, 8-9 μ . diam., pseudoperidio hemisphærico inclusis; uredosporis obovatis v. ellipsoideis, 18-25 × 13-17, episporio incolorato, echinulato præditis; soris

teleutosporiferis indeterminatis, cinnamomeis; teleutosporis unusque quadrilocularibus, confertis, globosis vel mutua pressione angularibus irregularibusve, 20-25 μ . diam., episporio levi dilute brunneo indutis.

Hab. in foliis Clethræ barbinervis, Swaki Japoniæ (KUSANO).

TRIPHFRAGMIUM Link. — Syll. VII p. 768, IX p. 318, XI p. 209, XVI p. 322 *).

1. **Triphragmium Ulmariae** (Schum.) Link. — Syll. VII, p. 768. — var. 1332
alpinum Lagerh. in Vestergr. Myc. rar. selecti Bot. Not. 1902, p. 175. — A typo differt absentia status secundarii Uredinis et soris teleutosporarum maximis, nervincolis (eadem forma ut in statu primario Uredinis).

Hab. in foliis Ulmariae pentapetalæ in regione alpina ad Strömsmo, Tromsø, Norvegia.

2. **Triphragmium Nishidanum** Diet. in Hedw. 1902, p. (177). — Soris 1333
minutis sparsis castaneis hypophyllis, primo tectis, deinde nudis, pulverulentis; teleutosporis subglobosis, 40-50 μ . latis, ad septa non vel vix constrictis, poro solitario laterali in quaque cellula instructis, castaneis, grosse tuberculatis, breviter pedicellatis.

Hab. in foliis Astilbes sinensis, var. albifloræ, Nikko Japoniæ (NISHIDA).

HAPALOPHRAGMIUM Syd. in Hedw. 1901, p. (64). — Syll. XVI p. 1121.

1. **Hapalophragmium Derridis** H. et P. Syd. in Hedw. 1901, p. (64). 1334
— Soris uredosporiferis amphigenis, plerumque hypophyllis, minutis, punctiformibus, sparsis vel compluribus dense aggregatis confluentibusque et tunc 1-2 mm. diam., cinnamomeis compactiusculis, maculis purpureo-brunneis v. obscure brunneis plerumque insidentibus; uredosporis globosis, subglobosis, ovatis vel piriformibus, membrana in sporis globosis æquabili crassitudine, in sporis piriformibus apice incrassata, grosse aculeata, flavo-brunnea, poris germinationis binis (ut videtur), 25-30 μ . diam. v. 27-36 \approx 19-25; soris teleutosporiferis amphigenis, plerumque hypophyllis, maculis minutis minusque manifestis insidentibus, sparsis, minutis,

*) Cfr. Milesi e Traverso, Saggio di una monografia del genere *Triphragmium* in Ann. Mycol. 1904, p. 143-156, tab. V, ubi species hucusque cognitæ describuntur et figuris col. illustrantur.

punctiformibus, non confluentibus, e compactiusculo demum subpulverulentis, flavo-brunneis; teleutosporis radiatim 3-cellularibus, levibus, pallide flavo-brunneis, totis $38-58 \approx 27-38$, quaque cellula ca. $28-38 \approx 14-22$, membrana tenui, apice non incrassata, cellula apicali epedunculata, duabus basalibus pedicello communi hyalino, apice crassiusculo deorsum attenuato $30-50 \mu$. longo suffultis; poris germinationis ad apicem v. juxta apicem cujusque cellulæ sitis.

Hab. in foliis vivis *Derridis uliginosæ*, Tanga in Africa trop. (HEINSEN) et in insula Nossi-Bé (HILDEBRANDT).

2. *Hapalophragmium setulosum* (Pat.) Syd. in Ann. mycol. 1904, p. 350. Ita vocandum, teste cl. Sydow l. c., *Triphragmium setulosum* Pat. — Syll. IX, p. 318 — ex eo quod articuli basales teleutosporarum sint bini nec singulus et sori valde compacti.

Sect. 4. Dictyosporæ.

RAVENELIA Berk. — Syll. VII p. 770, IX p. 318, XI p. 210, XIV p. 363, XVI p. 323 *).

1. *Ravenelia siliquæ* Long, Bot. Gaz. 1903, p. 118, fig. 7. — Sori 1335 subcutaneo-erumpentibus; uredosoris orbicularibus, amplis, 1-4 mm., diam., cinnamomeo-brunneis, epidermide rupta elevata cinctis, sparsis vel plus minus confluentibus; uredosporis fulvis, episorio dense verrucoso, oblongo-ovoideis v. ovato-fusoideis, $20-33 \approx 13-17$, sæpius $30 \approx 16$, poris germ. 8, in binas series juxta æquatorem quaternatis; paraphysibus rarissimis, clavatis, $43 \approx 7$, hyalinis, apice fulvellis.

Hab. in leguminibus *Acaciæ Farnesianæ*, Etla, Oaxaca Mexico (HOLWAY). — Teleutosporæ nullæ visæ. Cl. Long legumen *Acaciæ* pro siliqua habet!

2. *Ravenelia fragrans* Long, Bot. Gaz. 1903, p. 123, fig. 14. — Ure- 1336 dosoris subcutaneo-erumpentibus, primariis typice dense confluentibus foliaque ramulosque infantibus, secundariis subsparsis vel confluentibus, fulvis; uredosporis crasse tunicatis, sporis primarii angulosis, ultimis ovoideo-globosis, dense spinulosis, $17-23 \approx 13-17$.

*) Cfr. illustrationem hujus generis iconibus dilucidatam, cl. W. H. Long, in Bot. Gaz. 1903, p. 111-133 (ad species boreali-americanas).

poris germ. pluribus; paraphysibus copiosissimis clavatis, 40-50 \times 5-12, hyalinis, fulvo-capitatis; teleutosoris amphigenis et petioliculis, minutis, vix 1 mm. diam., atro-brunneis; teleutosporarum capitulis castaneo-brunneis, globosis, 70-85 \times 30-35, papillatis; teleutosporis 5-6 in sectione diam., papillis hyalinis brevibus 3-4 supra præditis, 33-38 \times 17-20; cellulis cystoideis ovoideo-oblongis, hyalinis, infra totum capitulum pendulis; pedicello hyalino, composito, brevi, deciduo.

Hab. in foliis, petiolis ramulisque Mimosæ fragrantis, Texas Amer. bor. (AUSSIN). — Affinis *R. expansæ*.

3. **Ravenelia Longiana** Syd. in Hedw. 1901 p. (128). — Soris ure- 1337
dosporiferis amphigenis, maculis nullis v. obsoletis, pallidis insidentibus, minutis, sparsis v. aggregatis confluentibusque, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavo-brunneis, 20-27 μ . diam.; soris teleutosporiferis amphigenis, minutis, sparsis vel plerumque in greges ca. 2 mm. latos aggregatis et confluentibus, pulverulentis, atris; capitulis teleutosporarum irregulariter rotundatis, hemisphaericis, levibus e sporis unicellularibus 5-7 in omni directione compositis, castaneo-brunneis, 55-90 μ . diam.; sporis unicellularibus 14-19 μ . diam.; cellulis cystoideis numerosis, globosis v. subglobosis, hyalinis 14-19 \times 14-16, vix persistentibus; hyphis pedicellum constituentibus discretis haud conjunctis.

Hab. in foliis vivis Cassiæ Roemerianæ, Austin, Texas. 1338

4. **Ravenelia spinulosa** Diet. et Holw. in Bot. Gaz. 1901, pag. 336. — Soris amphigenis, erumpentibus, uredosporiferis, ochraceis; uredosporis ellipsoideis vel fere globosis, 18-23 \times 16-19, pallide brunneis, spinulis brevissimis vestitis, paraphysibus intermixtis; soris ex capitulis teleutosporarum nigris, hemisphaericis, 75-110 μ . diam., 7-9 sporis, pallide brunneis formati; sporis 11-17 μ . latis, 1-cellularibus, apiculo usque 8 μ . long.

Hab. in foliis Cassiæ multifloræ, Oaxaca in Mexico.

5. **Ravenelia Usambaræ** Syd. in Ann. Mycol. I, 1903, p. 331. — Soris 1339
teleutosporiferis epiphyllis, in greges rotundatos ca. 3-5 mm. diam. concentrice dispositis, minutis, epidermide fissa cinctis, pulverulentis, obscure brunneis; uredosporis immixtis subglobosis vel late ellipsoideis, echinulatis, brunneolis, ca. 19-22 \times 14-18; capitulis teleutosporarum rotundatis, 75-120 μ . diam., dilute brunneis e 6-9-sporis in omni directione compositis, tuberculis minutis vix prominulis præditis, facile in sporas secedentibus; sporis unicellula-

ribus, apice incrassatis usque 6 μ ., 27-33 \approx 13-19; pedicello polyhyphoideo, hyalino; cystidiis globosis, hyalinis, 12-20 μ . diam.

Hab. in foliis vivis Cassiæ goratensis in Usambara Afr. or. (C. HOLST).

6. **Ravenelia portoricensis** Arthur Bull. Torr. Bot. Cl. 1904, p. 5. 1310

— Soris uredosporiferis amphigenis, circinantibus in greges circ. 3 mm. latos, subepidermiceis, pulverulentis, fulvis; uredosporis ellipsoideis, 24-29 \approx 16-18, episporio 2,5 μ . lato, luteo-aurantiaco, dense echinulato, poris 8, sparsis; paraphysibus nullis, teleutosporis non visis.

Hab. in foliis Cassiæ emarginatæ, Ponce, Porto Rico (A. A. HELLER) Amer.

7. **Ravenelia papillifera** Syd. in Ann. Mycol. I, 1903, p. 330. — Soris 1341

uredosporiferis amphigenis, sparsis v. irregulariter confluentibus, 0,5-1 mm. diam., pulverulentis, ochraceo-cinnamomeis; uredosporis subglobosis vel ellipsoideis, echinulatis, dilute brunneis, 18-30 \approx 16-22, episporio ca. 2-2,5 μ . crasso, poris germinationis numerosis sparsis instructis; paraphysibus paucis, capitato-clavatis v. clavatis, hyalinis ca. 40 μ . longis, 8-14 μ . crassis; soris teleutosporiferis amphigenis, sparsis, minutis, pulverulentis, atris; capitulis teleutosporarum rotundatis, castaneo-brunneis, 75-110 μ . diam. e 5-7-sporis in omni directione compositis; sporis singulis papilla hyalina 2-3 μ . alta præditis, 14-22 μ . diam., apice usque 5 μ . incrassatis; cystidiis hyalinis, globosis, pendulis, eodem numero quo sporis; pedicello brevi, hyalino, deciduo composito.

Hab. in foliis vivis Cassiæ Lindheimerianæ prope Austin in Texas Americæ bor.

8. **Ravenelia Baumiana** P. Henn. in Bot. Ergebn. der Kunene Sam- 1342

besi Expedit. pag. 157 (1902). — Maculis flavis vel ferrugineis; soris uredosporiferis amphigenis sparsis v. aggregatis, epidermide fissa tectis, ferrugineis; uredosporis subglobosis, ellipsoideis vel ovoideis, flavo-brunneis, 18-22 \approx 14-18, episporio minute verrucoso; soris teleutosporiferis plerumque epiphyllis orbiculariter dispositis, minutis castaneis, subpulverulentis; capitulis subglobosis, 90-120 μ . diam., castaneis, echinatis e 16-20 sporis compositis; sporis polyhedricis subcutaneis, 14-20 \approx 14-18, aculeis capitulatis, rectis vel curvulis, hyalino-fuscidulis, 7-9 \approx 5-6; pedicello nullo; cellulis appendicularibus paucis, subglobosis vel ovoideis, hyalinis 18 μ . diam.

Hab. in foliis Cassiæ goratensis, Humbe Afr. austr.

9. **Ravenelia macrocarpa** Syd. in Ann. Mycol. I, 1903. p. 329. — Soris 1343
 uredosporiferis amphigenis, plerumque hypophyllis, maculis obsoletis
 flavescentibus vel brunneolis insidentibus, sparsis vel paucis
 associatis, minutis, punctiformibus, flavo-brunneolis, 16-30 \approx 14-22;
 soris teleutosporiferis amphigenis, plerumque hypophyllis, sparsis,
 raro tantum paucis associatis, minutis, punctiformibus, atro-brun-
 neis; capitulis teleutosporarum globosis vel subglobosis, late casta-
 neis, levibus, 80-140 μ . diam. e sporis 8-10 in omni directione com-
 positis; sporis omnibus unicellularibus 20-27 μ . latis, apice usque
 5 μ . incrassatis; cystidiis appendicularibus non conspicuis; pedi-
 cello hyalino brevi.
Hab. in foliis Cassiæ bicapsularis in Brasilia (SELLO).
10. **Ravenelia atro-crustacea** P. Henn. Fungi Amaz. I, pag. 159, 1344
 Hedw. 1904. — Maculis flavo-brunneis, rotundatis; teleutosporis
 epiphyllis erumpentibus pulvinatis, primo epidermide fissa velatis,
 brunneis, dein subcrustiforme confluentibus, aterrimis versiformi-
 bus; capitulis subhemisphaericis vel irregulariter rotundatis, cinna-
 momeis, dein atris, levibus, plerumque 4-6-cellularibus, 45-70 μ . d.;
 cellulis continuis ovoideis v. subtriquetris ca. 20-28 \approx 18-25, cysti-
 diis ca. 4 subglobosis, inflatis, ca. 25-30 μ . diam.; pedicello hyphis
 plurimis composito, hyalino fuscido usque ad 50 \approx 6-7.
Hab. in foliis Swartziæ spec., Rio Juruá, Miry, Amer. merid.
 — *Habitus* quasi *Fumaginis*.
11. **Ravenelia Schweinfurthii** Syd. in Ann. Mycol. I, 1903, p. 330. 1345
 — Soris uredosporiferis amphigenis, maculis irregularibus insiden-
 tibus, sparsis vel paucis laxè aggregatis, minutissimis, punctifor-
 mibus, flavo-brunneis; uredosporis subglobosis v. ellipsoideis, bre-
 viter echinulatis, flavo-brunneis, 16-20 \approx 11-16; soris teleutospo-
 riferis conformibus, obscurioribus; capitulis teleutosporarum ro-
 tundatis, 55-105 μ . diam., castaneo-brunneis, levibus e 4-6 sporis
 in omni directione compositis; sporis unicellularibus apice circ.
 4 μ . incrassatis, 13-28 μ . latis; pedicello deciduo, hyalino; cysti-
 diis numerosis, hyalinis, globosis, 22-30 μ . diam.
- Hab.* in foliis vivis Entadæ sudanicæ, Duggu et Doggudu
 Africa centr. int. (G. SCHWEINFURTH).
12. **Ravenelia Casalpinæ** Arthur Bull. Torr. Bot. Cl. 1904, pag. 5. 1346
 — Pycnidiis sæpe epiphyllis, subepidermicis, in greges conge-
 stis, depressis, 60-100 \approx 15-18, luteo-aurantiacis, dein brunneis;
 soris uredosporiferis sæpe hypophyllis subcuticularibus congestis
 dein irregulariter sparsis, subrotundis vel oblongis, diu luteolis

dein ochraceis; uredosporis obvato-cuneatis, 28-35 \times 16-23; episporio tenui, 1,5-2 μ . lato, echinulato; poris germinationis 4; paraphysibus superne clavatis, fere hyalinis, membrana 1-1,5 μ . crassa; teleutosporis non visis.

Hab. in foliis Cæsalpinie spec. prope Bayamon, Porto Rico, Amer.

13. **Ravenelia Leucænæ** Long, Bot. Gaz. 1903, p. 126, fig. 23. — 1347

Soris subcutaneis plerumque epiphyllis, parce quoque petiolicolis; uredosoris cinnamomeo-brunneis, exiguis, 0,2-0,6 mm., ellipticis, epidermide rupta cinctis; uredosporis pallide brunneis, deorsum sæpe subhyalinis, oblongo-cylindraceis, rarius oblongis, sparse spinulosis, 35-50 \times 15-18; poris germ. 4, æquatorialibus vel infra-æquatorialibus; paraphysibus copiosis, subhyalinis, apice fulvis subclavato-capitatis, tenui-tunicatis, sæpe collapsis, 40-50 \times 18; teleutosoris castaneis, minutis, 0,4-0,6 mm. diam., epidermide fissa cinctis; teleutosporarum capitulis castaneis, orbicularibus, 65-90 \times 35-40, papillatis, teleutosporis in sect. diametr. 5-6, papillis hyalinis 4-7 \times 2-3 coronatis; cellulis cystoideis oblongo-ovoideis basi compressis, periphericis, hyalinis; pedicellis brevibus hyalinis, deciduis.

Hab. in foliis Leucænæ diversifoliæ et sp. ind. Etlæ, Oaxaca, Iguala Mexici. — Affinis *R. goyazensi* sed papillis brevibus, hyalinis, soris minutis etc. diversa.

PLEORAVENELIA Long, Bot. Gaz. 1903, p. 127 (Etym. *pleos* plenus et *Ravenelia* ob teleutosporas interiores septatas). — A gen. affini *Ravenelia* differt teleutosporis capituli interioribus bicellularibus (nec unicellularibus). *Æcidia* adsunt ut in *Ravenelia*, seu pseudoperidio instructa *).

1. **Pleoravenelia similis** Long, Bot. Gaz. 1903, p. 128, fig. 21. — 1348

Soris in maculis effusis flavicantibus amphigenis, punctiformibus usque 0,5 mm., diam., subcutaneis, in epiphyllis copiosioribus et sæpe late confluentibus; uredosoris paucis, ochraceis, minutis; ure-

*) Ad hoc novum genus pertinent quoque, præter sp. supra de criptis: *P. levis* (Diet. et Holw.) Long l. c. p. 127, fig. 17; *P. epiphylla* (Schw.) Long l. c. pag. 123, f. 18; *P. Indigoferæ* (Transz.) Long l. c. pag. 129, fig. 19; *P. Bronniartia* (Diet. et Holw.) Long l. c. p. 120, f. 20, nec non *P. Hieronymi* (Speg.) Long; *P. Mac-Owaniana* (Pazschke) Long; *P. glabra* (Kalechbr. et Cooke) Long et *P. Tephrosiæ* (Kalechbr.) Long l. c. p. 127.

dosporis brunneis, tunica crassa atro-brunnea spinulosa, globoso-ovoideis, $20-28 \times 17-23$; poris germ. 8-12 prope æquatorem; paraphysibus nullis; teleutosoris atro-brunneis; teleutosporarum capitulis levibus inæqualiter globosis, ovoideis, castaneis, $68-135 \mu$, sæpius 100μ diam.; teleutosporis in sect. diam. 6-8; cellulis cystoideis hyalinis periphericis in pedicellum decurrentibus; pedicello hyalino, composito, brevi.

Hab. in foliis Brongniartiae, Guadalajara Mexici (HOLWAY).

— A *P. epiphylla* recedit numero pororum germ. et uredosporis brunneis.

2. **Pleoravenelia Talpæ** Long, Bot. Gaz. 1903, pag. 130, fig. 22. — 1349

Soris subcutaneis, amphigenis, confertis; uredosoris parcis, ochraceis, epidermide fissa cinctis, minutis; uredosporis brunneis, tenuitunicatis, verrucosis ovoideo-subglobosis, solite inæquilateris, $25-32 \times 18-22$, sæpius 30×20 ; poris germ. æquatorialibus, 4-6, vix manifestis; paraphysibus nullis; teleutosoris minutis, atro-brunneis, numerosis, epidermide rupta cinctis; teleutosporarum capitulis atro-brunneis, irregulariter globosis v. ovoideis, minute sed distincte verrucosis, $65-115 \times 35-40$, typice 85μ diam., teleutosporis in sect. diam. 4-8, verrucis irregulariter sparsis, semihyalinis coronatis; cellulis cystoideis periphericis, hyalinis, in pedicellum compositum brevem hyalinum decurrentibus.

Hab. in foliis Tephrosiæ Talpæ, Oaxaca Mexico (HOLWAY). — A *P. epiphylla* recedit capitulis verrucosis, uredosporis brunneis; a *P. Tephrosiæ* verrucis minoribus, uredosporis majoribus etc.

NEORAVENELIA Long, Bot. Gaz. 1903, p. 131 (Etym. *neos* novus et *Ravenelia*). — Ab affini gen. *Ravenelia* differt æcidiis pseudoperidio carentibus. Teleutosporæ omnes 1-cellulares ut in *Ravenelia*, qua nota differt quoque a *Pleoravenelia*.

1. **Neoravenelia Holwayi** (Diet.) Long l. c. p. 131, fig. 24, *Ravenelia Holwayi* Diet. — Syll. XI, p. 216. — Hucusque, ut videtur, unica species novi generis.

UREDINACEÆ INFERIORES

PERIDERMIIUM Lév. — Syll. VII p. 835, IX p. 326, XI pag. 222, XVI p. 349.

1. **Peridermium Holwayi** Syd. Ann. Mycol. 1903, p. 19. — Pseudo- 1350

peridiis hypophyllis, biseriatis, sine maculis, primitus subrotundatis clausis, demum vertice irregulariter disrumpentibus, apice lacertis, albis; cellulis pseudoperidii forma et magnitudine variis; æcidiosporis plerumque globosis v. subglobosis, rarius ovato-ellipsoideis, confertim verrucosis, hyalino-flavescentibus, 19-24 μ . diam.

Hab. in acubus vivis *Pseudotsugæ Douglasii*, Glacier, Columbia britannica (HOLWAY).

2. *Peridermium ornamentale* Arthur in Bull. Torr. Bot. Cl. 1901, pag. 665. — Pseudoperidiis foliiculis biseriatis hypophyllis, cylindraceis, 1-2 mm. longis, initio luteo-pallidis; æcidiosporis obovatis, ellipticis vel globulosis, 13-17 \approx 20-26, episporio tenui verruculoso.

Hab. in foliis *Abietis lasiocarpæ*, Mount Paddo, Washington Amer. bor.

3. *Peridermium conorum* Thüm. — Syll. VII, pag. 836. — Observante cl. Oud. in Revue Myc. 1902, species nascitur in *Abiete excelsa*, nec *A. pectinata*.

RÆSTELIA Rebent. — Syll. VII p. 833, XI p. 222, XVI p. 348.

1. *Ræstelia fimbriata* Arthur in Bull. Torr. Bot. Cl. 1901, p. 666. — Pycnidiis epiphyllis, in maculis luteis insidentibus, prominentibus, nigrescentibus; æcidiosporis hypophyllis gregariis vel plerumque confluentibus; pseudoperidiis dehiscentibus, in longas lacinias desinentibus; sporidiis subglobosis 32-45 μ . diam., castaneo-brunneis, medio incrassatis, verrucosis.

Hab. in foliis *Sorbi* ejusdam, in montibus Elk, Wyoming Amer. bor.

2. *Ræstelia Nelsonii* Arthur in Bull. Torr. Bot. Cl. 1901, p. 665. — Pycnidiis epiphyllis, in maculis luteis insidentibus, congestis, prominentibus, nigrescentibus, numerosis; æcidiosporis hypophyllis congestis; pseudoperidiis 2-4 mm. long., rectis v. curvulis, dehiscentibus, apice subacutis, clausis; æcidiosporis globosis, 24-30 μ . diam., castaneo-brunneis, minute verrucosis v. levibus.

Hab. in foliis *Amelanchieris alnifoliæ*, Laramie Hills, Wyoming Amer. bor. — Stat. æcid. *Gymnosporangii Nelsoni* Arth.

3. *Ræstelia solenoides* Diet. in Bot. Jahrb. 1903, p. 631. — Pseudoperidiis hypophyllis, in maculis flavo-brunneis perpauca consociatis, tubiformibus, flavo-brunneis, ore angustato præditis, usque 3 mm. longis; æcidiosporis irregulariter globosis v. late ellipsoideis 18-21 μ . diam., usque 24 μ . longis, episporio flavo-brunneo, dense verrucoso tenui indutis.

Hab. in foliis Piri Ariæ Ehrb. var. *kamaonensis*, in prov. Iwaki Japoniæ (KUSANO).

ÆCIDIDIUM Pers. — Syll. VII p. 774, IX p. 319, XI p. 213, XIV p. 369, XVI p. 325.

1. **Æcidium Wedeliæ** Earle in Muhlenbergia 1901, p. 16. — Hypo- 1355
phyllum; maculis luteis 2-5 mm. diam.; pseudoperidiis dense congestis, luteis, brevibus, parce emergentibus, paullum laceratis, circ. 350 μ . diam., contextu cellulis polyhedricis, minute aculeatis, 30 \approx 20; æcidiosporis minutis, subpolygonalibus, luteis, episporio levi, circ. 16 \approx 12.

Hab. in foliis vivis Wedeliæ carnosæ, Mayaguez in insula Porto Rico Amer. centr.

2. **Æcidium recedens** Arthur Bull. Torr. Bot. Cl. 1904, pag. 7. — 1356
Pycnidiis amphigenis, in greges circulares dispositis, punctiformibus, melleo-aurantiacis, immersis, subepidermidicis, globosis, 90-100 μ . diam., ostioli periphysibus 45 μ . longis; æcidiis amphigenis pustuliformibus, in circulum dispositis; pseudoperidiis evanescentibus; æcidiosporis globosis, 16-23 vel 22-29, episporio 3 μ . diam., luteo-aurantiaco, dense minuteque verrucoso.

Hab. in foliis Solidaginis mollis, Callaway, Nebraska (J. M. BATES), Cypres Hills, Assiniboia Amer. bor. (J. MACOUN).

3. **Æcidium incurvum** Tracy et Earle in Plantæ Bakerianæ fasc. I, 1357
fungi p. 18. — Amphigenum; maculis nullis; pseudoperidiis irregulariter congestis profunde immersis incurvis, paullulo emergentibus; cellulis striatis 40-50 \approx 20-25; sporis globosis vel late ovalibus, intense coloratis, episporio crasso, leviter echinulato, 40-50 \approx 20-25; pycnidiis non visis.

Hab. in foliis Erigerontis flagellaris, Chicken Creek, Colorado Amer. bor.

4. **Æcidium dubiosum** Syd. in Hedw. 1901 p. (1). — Æcidiis hypo- 1358
phyllis, raro paucis etiam epiphyllis, maculis orbicularibus flavo-brunneis, 0,5-1,5 cm. diam., insidentibus, in greges orbiculares usque 1 cm. diam. laxè dispositis, flavidis, cupulatis, margine lacerato; æcidiosporis polygoniis, subhyalinis, tenuissime aculeolatis 18-27 μ . diam.

Hab. in foliis vivis Senecionis mikanioidis prope Durban, Natal (WOOD) et Senecionis quinquelobi, ad pedem montis Boschberg Africae austr. (MAC OWAN).

5. *Æcidium anceps* Syd. in Hedw. 1901, pag. (1). — *Æcidii* hypophyllis, maculis flavescentibus v. flavo-brunneolis 1 cm. diam. v. confluyendo irregularibus insidentibus, in greges orbiculares usque 1 cm. latos latiuscule dispositis, flavidis, cupulatis, margine lacerato; æcidiosporis globosis vel globoso-angulatis, hyalino-flavescentibus, punctatis, 13-17 μ . diam. 1359

Hab. in foliis vivis Senecionis deltoidis ad pedem montis Boschberg Africae austr. (MAC OWAN).

6. *Æcidium incertum* Syd. in Hedw. 1901, p. (1). — *Æcidii* hypophyllis, maculis flavo-brunneis orbicularibus subinde confluentibus 0,5-2 cm. diam. insidentibus, in greges orbiculares vel confluyendo irregulares 0,5-2 cm. diam. confertim dispositis, cupulatis, flavis, margine lacerato; æcidiosporis globosis v. globoso-angulatis, hyalino-flavescentibus, punctatis, 14-18 μ . diam.

Hab. in foliis vivis Senecionis spec. ad pedem montis Boschberg Africae austr. (MAC OWAN).

7. *Æcidium Inulæ-Heleni* Constantineanu, Ann. Mycol. 1904, p. 251. 1361
— Pycnidiis in parvos greges dispositis, melleis; æcidii hypophyllis, maculas flavas, distinctas, irregulares 1-3 mm. latas efformantibus; pseudoperidiis cupuliformibus, margine albido, revolutato, tenuissime denticulato; æcidiosporis polygoniis, isodiametricis 16,2-18,9 vel parum elongatis 17-21 \approx 16-18, flavescentibus, subtilissime punctatis.

Hab. ad folia *Inulæ Helenii*; in pratis humidis secus viam ferream prope pag. Grajduri in districtu Vaslui Romaniae.

8. *Æcidium Helianthellæ* Arthur in New York Bot. Gard. 1902, p. 348. 1362
— Pycnidiis epiphyllis, parvulis paucisque; æcidii hypophyllis in maculis pallidis insertis, in circulum dispositis; æcidiosporis globosis 14-22 μ . diam., minute rugosis vel non, membrana tenui, fere hyalinis.

Hab. in foliis *Helianthellæ* cujusdam, Alcove, Wyoming Amer. bor.

9. *Æcidium Grindeliæ* Syd. in Hedw. 1901 p. (1) non Griffiths, quia 1363
posterius (1902). — *Æcidii* amphigenis, maculis flavidis insidentibus, in greges rotundatos 3-5 mm. diam. dispositis, minutis, flavis, margine inciso; æcidiosporis globosis v. angulato-globosis, punctatis, subhyalinis, 10-15 μ . diam.

Hab. in foliis vivis *Grindeliæ squarrosæ*, Manhattan, Kansas Americae bor. (KELLERMAN). — Sec. cl. Griffiths in Bull. of the Torr. Bot. Club. 1902, p. 299, æcidiosporæ sunt leviter brun-

næ 20-24 μ . diam., episporio crasso, minute rugoso donatæ. Hæc in *Grindelia squarrosa*, Columbia Amer. bor.

10. *Æcidium Galasiæ* Syd. Ann. Mycol. 1903, pag. 252. — *Æcidii* 1364
hypophyllis, per totam folii superficiem æque sparsis, longe cylindraceis, margine profunde inciso, albis; æcidiosporis angulato-globosis, punctatis, pallide aurantiacis, 22-30 \times 18-25.

Hab. in foliis *Galasiæ villosæ*, prope Pirano Istriæ (L. Götz).

11. *Æcidium Clibadii* Syd. in Ann. Mycol. 1903, I, p. 333. — *Æci-* 1365
diis hypophyllis, maculis rotundatis brunneis 2-5 mm. diam., insidentibus, in greges rotundatos maculam explentes dispositis, primo clausis, dein breviter cylindraceis, margine inciso; æcidiosporis angulato-globosis, hyalino-flavescentibus, subtilissime verruculosis, 11-18 μ . diam.

Hab. in foliis vivis *Clibadii* Donnell-Smithii, in Departm. Guatemala (DONNEL-SMITH) et *Clib. asperi* in Guiana gallica (POITEAU).

12. *Æcidium Carphochætæ* Syd. Ann. Mycol. 1903, p. 20. — *Æci-* 1366
diis amphigenis, maculis irregularibus flavis plerumque insidentibus, irregulariter sparsis v. paucis aggregatis, diu globoso-clausis, tandem medio dehiscentibus, albis, pariete indistincto; æcidiosporis angulatis, verruculosis, flavescentibus, 22-30 \times 16-23.

Hab. in foliis *Carphochætæ* Grahami, San Luis Potosi in Mexico (J. G. SCHAFFNER).

13. *Æcidium Borrichiæ* Syd. in Hedw. 1901, pag. (129). — *Æcidii* 1367
hypophyllis, in maculis irregularibus interdum insidentibus, sparsis, laxè gregariis vel sæpe totam foliorum superficiem obtegentibus, cupulato-cylindraceis, margine albido, recurvato, laciniato; æcidiosporis angulato-globosis, subtiliter verruculosis, subhyalinis, membrana tenui 24-30 μ . diam.

Hab. in foliis vivis *Borrichiæ* frutescentis, Fort Morgan, Florida Amer. bor. (S. M. TRACY).

14. *Æcidium Boltoniæ* Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. 1368
— Maculis pallide luteis; pyrenidiis amphigenis ceraceis, luteis; sporulis oblongo-ovatis 3-5; pseudoperidiis generaliter hypophyllis, immersis, margine irregulari; æcidiosporis pallide luteolis, subglobosis, 13-17 μ . cr., episporio tenui parce verruculoso.

Hab. in foliis *Boltoniæ* asteroidis, Spirit Lake, Iowa Amer. bor.

15. *Æcidium Wulffiæ* P. Henn. Fung. Amaz. I, p. 166, Hedw. 1904. 1369

— Maculis fuscidulis, obscurius zonatis, rotundatis, sparsis; æcidiis hypophyllis; pseudoperidiis aggregatis orbiculariter dispositis, minutis, alutaceis, cupulatis, contextu cellulis oblonge polyhedricis, hyalinis, ca. 30×15 ; æcidiosporis subgloboso-angulatis, $15-20 \mu$. hyalino-fuscidulis, levibus.

Hab. in foliis *Wulffiae* spec. Rio Juruá, Juruá-Miry Amer. merid. — Forte ad *Urom. Wulffiae* spectat.

16. *Æcidium tarapotense* P. Henn. Fungi Amaz. I, p. 165, Hedw. 1370 1904. — Maculis rotundatis vel effusis, fuscis; æcidiis gregarie sparsis, amphigenis; pseudoperidiis concentricè dispositis, minutis, rotundatis dein cupulatis, flavidis vel brunneis, contextu cellulis oblonge polyhedricis, subhyalinis, reticulatis; sporis ovoideis vel ellipsoideo-angulatis, brunneo-fuscidulis, verrucosis, $30-40 \times 20-30$; pycnidiis sæpe oppositis, punctiformibus, fuscis.

Hab. in foliis *Vernoniæ*, Tarapoto, Perú, Amer. merid. — Ab *Æcid. Vernoniæ* diversum.

17. *Æcidium Patriniae* P. Henn. Einige neue japan. Ured. III, in 1371 Hedw. 1902, pag. 21. — Maculis rotundatis, fuscidulis, brunneo-cingulatis; æcidiis hypophyllis, pseudoperidiis aggregatis, cupulatis, pallide fuscidulis, contextu cellulis subgloboso-polyhedricis, hyalino-flavidulis, reticulatis, $20-30 \mu$. diam.; sporis subglobosis v. ellipsoideis, angulatis, $12-15 \times 10-13$, flavidis, levibus.

Hab. in foliis *Patriniae* scabiosifoliae, Tosa Japoniae.

18. *Æcidium Perkinsiae* P. Henn. F. Australiae occid. I, in Hedw. 1372 1901, p. 96. — Syll. XVI, p. 1121 (nomen). — *Æcidius* petioliculis v. calyciculis, incrassatis curvatisque; pseudoperidiis gregariis vel sparsis, hemisphaerico-cupulatis, semiimmersis, flavido-rufis, contextu cellulis rotundato- v. oblongo-polyhedricis, subhyalinis, reticulatis, $18-24 \times 16-20$; æcidiosporis subglobosis v. ellipsoideis, angulatis, flavidis, intus granulatis, $15-20 \mu$. diam.

Hab. in petiolis calycibusque *Leschenaultiae* linarioidis Perth Australiae occid.

19. *Æcidium plectronicola* P. Henn. in Ergebn. der Kunene-Sambesi 1373 Expedit. p. 162 (1902). — Maculis fuscis, rotundatis; æcidiis hypophyllis; pseudoperidiis aggregatis cupulatis v. breve cylindraceis, margine fimbriatis ex pallido fuscidulis, contextu cellulis polyhedricis, reticulatis, hyalino-fuscidulis, $20-30 \mu$. diam.; æcidiosporis subgloboso-angulatis, flavido-fuscidulis, levibus, $18-20 \mu$. d.

Hab. in foliis *Plectroniae* huillensis, Longa prope Napalanka Afr. austr.

20. *Aecidium Busseanum* P. Henn. in Engl. Bot. Jahrb. 1903, p. 42. 1374
 — Maculis incrassatis, explanatis, rufo-brunneis; pycnidiis epiphyllis, subdiscoideis, flavo-brunneis, nitentibus; aecidiis oppositis, effusis; pseudoperidiis subimmersis, cupulatis, pallidis, contextu cellulis oblongo-polyhedricis, reticulatis, hyalino-fusculis; aecidiosporis subgloboso-angulatis, hyalino-fusculis, 20-24 \times 18-22.
Hab. in foliis *Plectroniae hispidae*, Usambara Africae orient. (W. Busse).
21. *Aecidium Baumianum* P. Henn. in Ergebn. der Kunene-Sambesi 1375
 Expedit. p. 163 (1902). — Maculis rotundatis, gregariis flavis v. fuscis exaridis; aecidiis hypophyllis circulariter dispositis v. epiphyllis sparsis singularibus; pseudoperidiis breve cylindraceis ca. 600-700 μ . altis, 250-300 μ . latis, pallidis, margine fimbriatis, contextu cellulis polyhedricis, flavidulis v. hyalinis, reticulatis; aecidiosporis subglobosis v. ellipsoideis angulatis, levibus, intus flavidulis hyalinescentibus.
Hab. in foliis *Plectroniae abbreviatæ*, Habungu, Afr. austr.
22. *Aecidium Borrerie* Pat. in Duss. Enum. champ. Guadel. 1903, 1376
 p. 7. — Pseudoperidiis solitariis inæqualiter sparsis, hypophyllis, parenchymate immersis, dein emergentibus, pallidissime flavidis, 300 μ . diam., brevissimis, initio clausis dein apertis; cellulis pseudoperidii angulosis, fere achromis, verrucosis, 25 \times 15; aecidiosporis globulosis v. ovoideis, pallide flavis, minute granulosi, 20 \times 18, membrana tenuissima.
Hab. in foliis *Borrerie* sp. herbaceæ cujusdam Basse-Terre Guadalupe (Duss). — Folia normaliter elliptica parasiti ope anguste linearia et deformia evadunt.
23. *Aecidium Ancylothi* P. Henn. in Bot. Ergebn. der Kunene-Sambesi 1377
 Expedit. p. 161 (1902). — Maculis rotundatis, flavis v. fusculis; aecidiis hypophyllis; pseudoperidiis sparsis v. aggregatis, sæpe nervos sequentibus, cylindraceis, pallidis, margine fimbriatis, contextu cellulis polyhedricis, subhyalinis, reticulatis, 20-30 μ . diam.; aecidiosporis subgloboso- v. ovoideo-angulatis, levibus, intus flavidis, 16-24 \times 15-22.
Hab. in foliis *Ancylothi fulgidi*, Habungu, Afr. austr.
24. *Aecidium Cephalanthi-peruviani* P. Henn. Fungi Amaz. I, p. 167 1378
 (Hedw. 1904). — Maculis rotundatis, rufo-brunneis ca. 1 cm. d., pycnidiis pulvinato-hemisphaericis, castaneis, gregariis; aecidiis hypophyllis oppositis; pseudoperidiis subcirculariter dispositis, cu-

pulatis, margine albidis fimbriatis, contextu cellulis oblonge polyhedricis, reticulatis, 50-60 \times 20-30; æcidiosporis subgloboso-angulatis, intus fuscidulis, 10-15 μ ., episporio levi hyalino.

Hab. in foliis *Cephalanthi peruviani*, Tarapoto in Perù Amer. merid.

25. *Æcidium Psychotriæ* P. Henn. Fungi Amaz. I, p. 166, Hedw. 1379 1904. — Maculis subaurantiacis vel flavo-brunneis, effusis; æcidiis hypophyllis sparsis; pseudoperidiis primo semiimmersis, dein cupulatis, margine pallido, subfimbriato, contextu cellulis oblonge polyhedricis, hyalinis, reticulatis; sporis subgloboso-angulatis, 20-30 μ ., intus flavido-fuscidulis, episporio usque ad 8 μ . incrassato, reticulato.

Hab. in foliis *Psychotriæ* spec. Cerro de Isco, Perù Americæ merid.

26. *Æcidium iquitosense* P. Henn. Fungi Amaz. I, p. 166, Hedw. 1380 1904. — Maculis nigris effusis, pycnidiis gregariis, atris punctiformibus; æcidiis foliicolis cauliculisque deformantibus effusis; pseudoperidiis semiimmersis, cupulatis, fuscidulis, margine pallidis, fimbriatis, contextu cellulis oblonge polyhedricis, tessellatis, 30-40 \times 20-30; æcidiosporis subgloboso-angulatis, verrucosis, hyalino-fuscidulis, 18-23.

Hab. in caulibus foliisque *Psychotriæ* spec., Iquitos Perù Amer. merid. — Ab *Æc. Psychotriæ* aliisque bene diversum.

27. *Æcidium Tracyanum* Syd. in Hedw. 1901, p. (129). — *Æcidiis* 1381 hypophyllis, in maculis irregularibus, indeterminatis, flavidis insidentibus, in greges irregulares v. rotundatos laxè dispositis, interdum paucis, etiam cauliculis, breviter cylindraceis, albidis, margine lacerato; pycnidiis in epiphyllis æcidiis contrappositis; æcidiosporis globosis v. angulato-globosis, hyalino-flavidis, subtiliter verruculosis, 20-26 μ . diam.

Hab. in foliis caulibusque vivis *Ruellie* spec., Braidentown, Florida Americæ bor. (S. M. TRACY).

28. *Æcidium Tuberosæ* P. Henn. Fungi Amaz. I, pag. 167 (Hedw. 1382 1904). — Maculis rotundatis, sparsis, ferrugineis; æcidiis plerumque epiphyllis interdum hypophyllis; pseudoperidiis aggregatis v. orbiculariter dispositis, ferrugineis, cupulatis, contextu cellulis oblonge polyhedricis vel fusoidis, reticulatis, fuscidulis; æcidiosporis subgloboso-angulatis, fusco-brunneis, 20-25 μ .

Hab. in foliis *Ruellie tuberosæ*, Perù, Salinas de Pilluana Amer. merid.

29. *Æcidium Isoglossæ* Syd. in Ann. Mycol. I, 1903, pag. 333. — 1333

Æcidii amphigenis, maculis nullis vel vix distinctis pallescentibus insidentibus, tubercula elevata verruciformia ca. 1-3 mm. diam. formantibus et in eis paucis profunde immersis, interdum etiam solitariis vel 2-3 associatis et tubercula nulla vel vix evoluta formantibus, cupulatis, tandem late apertis et margine recurvato; æcidiosporis angulato-globosis vel late ellipsoideis, hyalino-flavescentibus, verruculosis, 20-28 \times 18-25.

Hab. in foliis vivis *Isoglossæ lacteæ*, Bulagwa Berg, Deutsch Ostafrika (W. GOETZE).

30. *Æcidium cyattarioides* P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1334

1904). — *Æcidii* ramicolis, cortice erumpentibus; gallis ovoideis vel varie tuberculiformibus, duris, usque ad 1-2 cm. diam., rugosis; pseudoperidiis immersis, cupulatis vel subfavosis, ferrugineis, contextu cellulis rotundato-polyhedricis ca. 30 μ ., reticulatis; æcidiosporis subgloboso-angulatis, hyalino-flavidulis vel fuscidulis, levibus, 10-14 \times 8-12.

Hab. in trunco ramisque *Acanthaceæ* cujusdam scandentis Rio Jurua, Marary Amazoniæ. — Gallas generat *Cyttariæ* habitu.

31. *Æcidium Melananthi* Henn. in Hedw. 1902, p. (62). — *Æcidii* 1335

ramulos circumdantibus eos incrassantibus curvantibusque, gregariis v. sparsis, semiimmersis, subhemisphærico-pulvinatis, pallide flavidulis, contextu cellulis polyhedricis, reticulatis, fuscidulis; æcidiosporis subgloboso-angulatis, hyalino-fuscidulis, 18-21 μ . diam.

Hab. in ramulis *Melananthi dipyrenoidis*, Pico de Gavea Brasiliæ (E. ULM).

32. *Æcidium Aphelandræ* P. Henn. Fungi Amaz. IV, in Hedw. 1904, 1336

p. 58. — Maculis rotundatis fuscidulis vel pallidulis, atrobrunneo zonatis; pycnidiis epiphyllis gregariis, rotundato-pulvinatis, atrocastaneis; æcidiiis hypophyllis oppositis vel sparsis, cupulatis, margine albido-fimbriatis, contextu cellulis polyhedricis ca. 20-30 μ . diam.; æcidiosporis subgloboso- v. ellipsoideo-angulatis, fuscidulis, levibus, 10-18 \times 10-15.

Hab. in foliis *Aphelandræ*, Tarapoto, Rio Amazonas Brasiliæ.

33. *Æcidium habunguense* P. Henn. in Bot. Ergebn. der Kunene- 1337

Sambesi Expedit. pag. 160 (1902). — Maculis fuscis rotundatis, æcidiiis hypophyllis orbiculariter dispositis, cupulatis v. breve cylindræis, pallidis, dein subfuscidulis, contextu cellulis polyhedricis, subhyalinis, reticulatis, 20-30; æcidiosporis subglobosis angulatis, flavo-fuscidulis, levibus, 18-22 \times 17-21.

Hab. in foliis Solani Baumii, Habungu Afr. austr.

34. *Æcidium alapense* Holw. Ann. Mycol. 1904, p. 392. — Maculis 1338

brunneis; æcidiiis hypophyllis sparsis, in quoque grege 1-6, leviter immersis; æcidiosporis globosis vel angulosis, tuberculatis 24-36 \times 24-28, membrana 4-6 μ . cr.; cellulis pseudoperidii fortiter verrucosis 28-40 \times 24-28, membrana æqualiter 6 μ . crassa.

Hab. in foliis Ipomœæ (an I. Jalapæ?), Jalapa Mexici. — Simul adest *Uredo* quædam: soris brunneis, minutis, uredosporis globoso-ellipsoideis, laxè spinulosis 28-36 \times 24-28.

35. *Æcidium Mayori* Ed. Fisch. Bull. herb. Boiss. 1902, pag. 957 1389

(absque diagnosi). — Pseudoperidiis in toto hypophyllo æqualiter gregariis, rarius in epiphyllis, folium leviter deformantibus, scutellatis, albido-flavidis, maturis margine extus flexo apertis; cellulis pseudoperidii superimpositis, tunica interiore paulo tenuiore verrucosa, exteriori paulo crassiore; æcidiosporis obtuse polyhedricis usque ellipsoideis, 24-32 \times 12-21, tunica tenui extus crebre minute verruculosa.

Hab. in foliis Sideritis hyssopifoliæ in Vallon d'Ardan Helvetiæ (E. Mayor). — Intermixta et amphigena adsunt pycnidia (*Æcidiola*) ostiolis conspicue emergentibus.

36. *Æcidium caulicolum* Kellerm. Journ. of Myc. 1903, p. 227, St. 1390

æcidialis *Puccinice caulicolæ* Tr. et Gall.: cfr. Syll. VII, p. 641. — Soris sæpe epiphyllis, paucis, sparsis, maculas sordide luteas formantibus, 0,5-1 mm. diam., raro hypophyllis; æcidiiis in singulo soro paucis, interdum 10-12, erumpentibus 210-350 μ . diam., e cellulis latis compositis; æcidiosporis pallide aureo-luteis, echinulatis, globosis vel oblongo subovatis 10-25 \times 17-20.

Hab. ex cultura *Puccinice caulicolæ* in foliis *Salviæ lanceolatæ* in Amer. bor. — Pseudoperidii margo laciniatus, vix reflexus.

37. *Æcidium Tinneæ* P. Henn. in Ergebn. der Kunene-Sambesi Ex- 1391

pedit. p. 162 (1902). — Maculis flavidis v. fuscidulis, rotundatis vel effusis interdum bullatis; æcidiiis hypophyllis interdum epiphyllis, pseudoperidiis circulariter dispositis, sparsis v. aggregatis, cupulatis, pallidis, margine fimbriatis, contextu cellulis rotundato-polyhedricis flavidulis v. subhyalinis, reticulatis; æcidiosporis subglobosis angulatis, levibus, hyalino-fuscidulis, 18-22 \times 15-18.

Hab. in foliis Tinneæ eriocalycis, Longa prope Napalanka Africæ austr.

38. *Æcidium Moschosmatis* P. Henn. in Engl. Bot. Jahrb. 1901, 1392

p. 254, Sacc. — Syll. XVI, p. 1122 (nomen). — Æcidiiis petioli-

colis v. cauliculis, incrassatis curvatisque; pseudoperidiis gregariis cupulatis v. cylindraceis, fissis, ochraceis, contextu cellulis oblongo-polyhedricis reticulatis, $35-60 \times 25-35$; æcidiosporis subglobosis, ovoideis v. ellipsoideis, angulatis, ochraceis, $26-50 \times 20-30$, episporio verrucoso.

Hab. in foliis *Moschosmatis multiflori*, Kondeland sup. Afr. orient.

39. *Æcidium clerodendricola* P. Henn. in *Ergebn. der Kunene-Sambesi Expedit.* p. 163 (1902). — Maculis fuscis rotundatis interdum confluenti-effusis; æcidiis orbiculariter dispositis, hypophyllis, aggregatis; pseudoperidiis cupulatis, pallidis vel fusciculis, margine fimbriatis; contextu cellulis polyhedricis, reticulatis, $20-30 \mu$. d., subhyalinis; æcidiosporis subglobosis v. ellipsoideis angulatis, intus flavo-brunneis, levibus, $18-21 \times 15-20$.

Hab. in foliis *Clerodendri Buchneri*, Knito Afr. austr.

40. *Æcidium Lippiæ-sidoidis* Syd. in *Österr. bot. Zeitschr.* 1902, n. 5. 1394
— Æcidiis hypophyllis, maculis orbicularibus, 2-4 mm. d., fuscis insidentibus, in greges maculam subexplentes rotundatos dispositis, primo globoso-clausis, dein cupulatis, flavis; æcidiosporis angulatis, verruculosi, flavidis, $16-25 \times 15-22$.

Hab. in foliis vivis *Lippiæ sidoidis*, Brasilia (SELLO).

41. *Æcidium Eritrichii* P. Henn. Einige neue japan. Ured. III, in *Hedw.* 1902, p. 21. 1395
— Maculis fuscis, rotundatis v. effusis; æcidiis cauliculis v. hypophyllis; pseudoperidiis aggregatis, cupulatis, flaviculis, cellulis contextu polyhedricis ca. 20μ . diam., hyalinis; æcidiosporis subglobosis, flavo-aurantiis, $13-17 \mu$. diam. levibus.

Hab. in caulibus folisque *Eritrichii peduncularis*, Tosa Japoniæ.

42. *Æcidium Williamsii* Ricker, *Journ. of Mycol.* 1904, pag. 165. — 1396
Maculis flavidis, leviter incrassatis; pseudoperidiis dense aggregatis, sæpius hypophyllis, cylindraceis v. ellipsoideis; sporis pallide flavis subglobosis, $19-26 \mu$. diam., minute verrucosis, tunica 2μ . cr.

Hab. in foliis et caulibus *Lithospermi angustifolii*, Brooking S. D. Amer. bor. (T. A. WILLIAMS). — Cum *P. Lithospermi* E. et K. (quæ potius vocanda *P. Evolvuli*, nam in *Evolvulo* piloso nascitur, nec in *Lithospermo*) nil commune habet.

43. *Æcidium Onosmodii* Arthur, *Bull. Torr. Bot. Cl.* 1904, pag. 6. 1397
— Pycnidiis amphigenis, in circulum parvulum dispositis, punctiformibus, melleo-aurantiacis, immersis, subepidermicis, in sectione verticali globosis, $90-120 \mu$. diam., ostioli periphysibus 60-

80 μ . longis; æcidiis hypophyllis minutis in circulum parvulum dispositis vel solitariis, pustuliformibus; pseudoperidiis erectis vel interdum curvulis, margine crasse laceratis; æcidiosporis globosis 20-29 vel 19-23, episporio hyalino 2-2,5 μ . lato, dense minuteque verrucoso.

Hab. in foliis *Onosmodii mollis*, Callaway, Nebraska, North Dakota et Kansas, Amer. bor.

44. *Æcidium Mertensiae* Arthur, Bull. Torr. Bot. Cl. 1904, p. 6. — 1398

Pycnidiis epiphyllis, in circulos parvulos dispositis, stipatis, punctiformibus, immersis, subepidermicis, globosis, 65-120 μ . diam. ostiolis periphysibus 60-90 μ . longis; æcidiis hypophyllis in circulum dispositis, stipatis, latis immersis; pseudoperidiis crasse laceratis recurvatisque; æcidiosporis luteo-aurantiacis globosis 19-26 vel 22-28, episporio hyalino tenuissimo 1-2 μ . lato, dense minuteque verruculoso v. sublevi.

Hab. in foliis *Mertensiae* paniculatæ prope Lolo Creek in montibus Bitter Root, Idaho, Amer. bor.

45. *Æcidium Guadalaræ* Syd. in Cest. bot. Zeitschr. 1902, n. 5. — 1399

Æcidiis hypophyllis, maculis orbicularibus brunneolis insidentibus, solitariis v. sæpius paucis tantum in quaque macula, cylindraceis, albidis; æcidiosporis angulatis, subtiliter verruculosis, flavescentibus, 16-23 μ . diam.

Hab. in foliis vivis *Brickelliae* hebecarpæ, in collibus pr. Guadalaræ Mexico (PRINGLE).

46. *Æcidium patagonicum* Speg. Myc. argent. ser. II, 1902, p. 66. — 1400

Pseudoperidiis apertis 0,4-0,8 mm. diam., confertis, matrice flavescente, incrassatula insidentibus; æcidiis amphigenis, primo hemisphærico-prominulis dein patellari-apertis, flavidulis, vix exsertis, margine denticulatis; cellulis pseudoperidii tessellatis polygonis crasse tunicatis, radiatim rugulosis; æcidiosporis e globoso polygonis levibus subhyalinis; uredosporis tenuiter tunicatis 14-16 μ . diam., densissime constipatis.

Hab. ad folia viva *Collomiae* gracilis, prope Carren-leofu, in Argentina. — Stat. æcidiosporicus *Pucciniae Patagonicæ* Speg., cum qua vegetat.

47. *Æcidium Jacquemontiae* Ell. et Ev. in Journ. of Mycol. 1902, 1401

vol. 8, p. 11. — Æcidiis amphigenis, sparsis, hemisphærico-erumpentibus, dein apice applanatis, circa 250 μ . diam., in sicco fere plumbeis (colore ignoto in planta viva); cellulis pseudoperidii subellipticis, circ. 15 μ . diam.; æcidiosporis e globoso-angulari-

bus, circ. 12 μ . diam. v. ovato-ellipticis, 12-15 \approx 10-12, episporio exili præditis.

Hab. in foliis Jacquemontiae pentanthæ, Yucatan Mexico.

48. *Æcidium Fraseræ* Trelease, Harrim. Alaska Exped. Crypt. p. 36. 1402

— Maculis flavidis, circularibus v. in petiolis subelongatis, 2-5 mm. long.; pycnidiis et æcidiiis amphigenis sed inferne copiosioribus prioribus denique brunneis; pseudoperidiis non confertis irregulariter v. circinatim dispositis, 0,25 mm. diam., cylindraceis, margine non excedente; æcidiosporis polygono-subglobosis v. ellipsoideis, sublevibus, 16-22 μ . diam.

Hab. in foliis Fraseræ, Kadiak Alaska (TRELEASE). — Ab *Æcidio Gentianæ* Jacz. dispositione pycnidiorum et forma pseudoperidiorum sat diversum.

49. *Æcidium longaense* P. Henn. in Bot. Ergebn. der Kunene Sam- 1403

besi Expedit. pag. 161 (1902). — Maculis flavo-fusculis, rotundatis, pycnidiis sparsis, rufo-brunneis, ceraceis, punctiformibus; æcidiiis oppositis hypophyllis, rotundato-dispositis; pseudoperidiis aggregatis v. sparsis, cupulatis, margine fimbriatis, albidis v. flavidulis, contextu cellulis polyhedricis, reticulatis, hyalinis vel fusculis; æcidiosporis subgloboso-angulatis, flavidis, 15-18 \approx 13-17 levibus.

Hab. in foliis Jasmini microphylli, Longanundung Afr. austr.

50. *Æcidium Fraxini-Bungeanæ* Diet. in Bot. Jahrb. 1903, p. 630. — 1404

Hypophyllum; soris in maculis flavescentibus v. sordide brunneis, magnis præsertim secus nervos late, usque 4 cm., expansis, haud raro vesciculososo-inflatis et in petiolis nervisque foliorum tumores pulvinatos, convexos generantibus; pseudoperidiis cylindraceis retis, margine irregulari; æcidiosporis irregulariter polyhedricis, oblongis vel isodiametricis, 20-28 \approx 17-23, episporio tenui irregulariter verrucoso præditis; pycnidiis in pagina superiore foliorum numerosis.

Hab. in foliis petiolisque Fraxini Bungeanæ var. pubinervis, Tokyo Japoniæ (KUSANO).

51. *Æcidium Tellinianum* Sacc. Ann. Mycol. 1904, p. 174. — Pseu- 1405

peridiis amphigenis, hinc inde late et creberrime gregariis et magnam folii partem obtegentibus sæpeque contorquentibus, initio cupulatis, dein in tubulum album, subintegrum, sed facile lacratum, vix 1 mm. altum, 0,5 mm. latum productis; cellulis pseudoperidii oblongo-angulosis, 20-28 \approx 14-20, hyalinis, episporio cre-

bre minutissime transverse foveolato simulateque muriculato; æcidiosporis ovoideis v. ellipsoideis, sæpe obtuse angulosis, 25-28 × 16-20, levibus, varie guttulatis, dilute umbrinis.

Hab. in foliis vivis, rarius in ramulis tenellis *Salvadoræ persicæ*, Keren *Erythrææ*, 10 XI, 1902 (Prof. Ach. TELLINI). — Matricem determinavit prof. R. Pirotta.

52. *Æcidium Ulei* P. Henn. Fungi Amaz. I, p. 167 (Hedw. 1904). — 1406

Maculis rotundatis vel effusis, fuscis vel nigricantibus; pycnidiiis epiphyllis gregariis, hemisphaericis, atris, ca. 0,3 μ . diam.; æcidiiis hypophyllis, circulariter dispositis vel sparsis; pseudoperidiis primo hemisphaerico-clausis, atris, dein cupulatis, pallidis, margine fimbriatis, ca. 0,3-0,4 μ . diam., contextu cellulis oblonge polyhedricis, reticulatis, hyalinis, ca. 30 × 20; æcidiosporis subgloboso-angulatis, levibus, hyalino- vel flavido-fusculis, 14-20 μ .

Hab. in foliis *Diospyri spec.*, Rio Juruá, Marary et St. Clara, Amer. merid.

53. *Æcidium atro-album* P. Henn. in Bot. Ergebn. der Künene- 1407

Sambesi Expedit. p. 162 (1902). — Maculis flavidis v. fusculis; æcidiiis hypophyllis raro epiphyllis; pseudoperidiis stromatoideis, atris primo clausis, dein apertis subcupulatis, intus albidis, margine sublacinatis; æcidiosporis subglobosis angulatis, subhyalino-flavidis, 17-21.

Hab. in foliis *Diospyri mespiliformis*, Künene Africa austr.

54. *Æcidium Encianthi* Diet. in Bot. Jahrb. 1903, p. 631. — Pseu- 1408

doperidiis hypophyllis in maculis parvis brunneis vel rubiginosis, flavo-areolatis, cupuliformibus, margine irregulariter lacerato proeditis; sporis subglobosis, polyhedricis vel oblongis, 22-23 × 17-24, episporio æquali, minute verrucoso vestitis.

Hab. in foliis *Encianthi japonici* in monte Shirane Japoniæ (KUSANO).

55. *Æcidium virgatum* Lindroth, Die Umbellif. Ured. 1902, p. 164. 1409

— Pycnidiiis flavidis vel brunneolis, subepidermicis, subrotundis, 100-120 μ . diam., ostiolis prominulis, hyalinis; æcidiiis hypophyllis in maculis subcircularibus brunneis, subpoculiformibus, pseudoperidio brevissimo, minute denticulato, flavido; cellulis regulariter dispositis, subimbricatis, plerumque inæqualiter rectangularibus, 20-30 × 15-22, tunica æquali 3-4 μ . cr., latere externe transverse striata, interne crebre punctata; æcidiosporis regulariter

ter seriatis, globoso-polygoniis, tunica tenui, hyalina, minute verruculosa, 17-24 μ . diam.

Hab. in foliis *Eryngii plani* in prov. Saratow Rossiae (TRANZSCHEL).

56. *Æcidium salinum* Lindr. Die Umbellif. Ured. 1902, pag. 163. 1410

— Pycnidiis subepidermicis, ab æcidiis circumdatis, flavidis, 90-110 μ . albis, 180 μ . lat., ostiolis subhyalinis usque 60 μ . emergentibus; æcidiis pustuliformibus, flavidis; pseudoperidiis non emergentibus, cellulis irregulariter dispositis, inæqualiter rotundatis, laxiusculis, extus tunicâ 4-5 μ . cr., transverse striata, intus tunicâ tenuiori punctata formatis, 18-30 μ . diam.; æcidiosporis ellipsoideo-globosis, 18-27 \times 15-24, membrana tenui, hyalina, crebre minute punctata.

Hab. in Peucedano salino, inter Jenisei et Tomsk Sibiriae (A. K. CYONDER).

57. *Æcidium sarcinatum* Lindroth, Die Umbellif. Ured. 1902, p. 165. 1411

— Pycnidiis subepidermicis, 120-140 μ . diam., rariissimis; æcidiis poculiformibus in areis limitatis foliorum petiolorumque dense confertis; pseudoperidiis breve cylindræeis, margine brevi, flavido, minute inciso et revolutis; cellulis polygoniis, subinæqualiter dispositis, tunica latere exteriori 10 μ . cr., striis transversis vix emergentibus, e latere interiore 5-5,5 μ . cr., aculeolato-verrucosa 20-30 μ . diam.; æcidiosporis regulariter seriatis, globoso-ellipsoideis, tunica tenui, minute crebre verruculosa, 20-25 \times 16-23.

Hab. in foliis *Ferulæ foetidissimæ*, Turkestan (KOMAROV).

58. *Æcidium Berulæ* Bubák, Centralbl. f. Bakteriöl. 1902, IX, p. 126.

Hab. in foliis *Berulæ angustifoliæ* in Bohemia. — Teste auctore in litt. æque ac *Æc. carotinum*, est status æcidialis *Uromycetis Scirpi* (Cast.) Lagerh. et ab illo morphologice non differt.

59. *Æcidium carotinum* Bubák, Centralb. f. Bakteriöl. 1902, IX, p. 126.

Hab. in foliis *Dauci Carotæ* in Bohemia. — Teste auctore in litt., est status æcidialis *Uromycetis Scirpi* (Cast.) Lagerh. et ab *Æcidiis* pastinacicolis nullâ notâ morphologicâ differt.

60. *Æcidium Ferulæ* Rouss. et Dur. — Syll. VII, p. 793. — Sec. cl. Juel in Bull. Soc. Mycol. Fr. 1901, p. 268, species provenit in *Thapsia* non in *Ferula*; hinc potius vocanda *Æc. punicum* Juel. Tamen in Sicilia species revera nascitur etiam in *Ferula*, propterea nomen Rousselianum manere debet.

61. *Æcidium Hamamelidis* P. Magn. Ber. D. B. G. 1901, p. 297, 1412

t. XIII, f. 23-26 (absque diagnosi). — Maculis minutis epiphyllis, rubellis; pycnidiis epiphyllis; æcidiis hypophyllis pseudoperidiis longis præditis; æcidiosporis $25 \approx 20$, membrana hinc inde bullato-inflata, bullis demum deciduis.

Hab. in foliis Hamamelidis sp. in montanis Nikko Japoniæ (MANABU MIYOSHI).

62. *Æcidium Anogræ* Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. — 1413

Pseudoperidiis dense congestis, in maculis rubescentibus, densis, generaliter hypophyllis, elongatis, cylindraceis, margine laceratis, in longitudine revolutis; æcidiosporis subglobosis, 22-26, luteis, episporio 3 μ . cr., verruculoso donatis.

Hab. in foliis *Anogræ pallidæ*, Long Pine, Nebr. Americæ borealis.

63. *Æcidium Cardiospermi* Cooke: cfr. Syll. VII, p. 785. — Syd. in Ann. Mycol. 1903, I, p. 333. — *Æcidiis* hypophyllis, maculis flavidis v. flavo-brunneis, 2-5 mm. diam. insidentibus, in greges maculam explentes dense gregariis, minutissimis, diu hemisphaericis, tandem breviter cupulatis, margine subintegro; æcidiosporis angulato-globosis, hyalino-flavescentibus, minutissime verruculosus 16-24 μ . diam.

Hab. in foliis *Cardiospermi microcarpi*, Zanzibar Afr. merid.

64. *Æcidium Maprouneæ* P. Henn. Fungi Amaz. I, p. 168 (Hedw. 1414

1904). — Maculis fuscis, irregulariter effusis, pycnidiis cinnamomeis punctiformibus; æcidiis hypophyllis interdum nervos sequentibus; pseudoperidiis sparsis vel gregariis, cupulatis albidis margine fimbriatis, contextu cellulis oblonge polyhedricis, hyalinis, reticulatis, 20-30 \approx 20; æcidiosporis oblonge vel subgloboso-angulatis, hyalinis, 12-20 \approx 10-16.

Hab. in foliis *Maprouneæ* spec., Perù, Rio Amazonas, Squitos, Amer. bor.

65. *Æcidium kakelense* P. Henn. in Bot. Ergebn. der Kunene-Sam- 1415

besi Expedit. p. 161 (1902). — Maculis sanguineis, effusis; æcidiis gregariis paginam inferiorem totam foliorum tegentibus; pseudoperidiis cylindraceis plus minus elongatis, cretaceis, contextu cellulis rotundato-polyhedricis, reticulatis, hyalinis, 22-30; æcidiosporis subglobosis v. ellipsoideis, angulatis, levibus, intus flavidis 18-23 \approx 15-21.

Hab. in *Euphorbia* spec., Gondkopje et Kakele Africae austr.

66. *Æcidium Marci* Bubák, Ber. Deutsch. bot. Gesell. 1903, p. 275. 1416

— Caules et petiolos deformans et tumefaciens, foliaque occupans; pseudoperidiis initio immersis, dein emergentibus et margine albo, inflexo, laciniato, 100-200 μ . latis; cellulis irregulariter seriatis, globoso-polygoniis, 25-30 \times 16-28, irregulariter crebre verruculosi, crasse tunicatis; pariete externe valde incrassato, contextu aurantio; æcidiosporis globosis v. oblongis, semper polygoniis, 20-28 \times 17-24, membrana tenui, levi, flavida guttulisque majusculis aureis præditis.

Hab. in caulibus foliisque *Mercurialis annuæ*, Dulcigno, Montenegro. — Pycnidia adsunt hemisphærica, mellea, dein brunneola, 100-150 μ . diam.

67. *Æcidium dalechampiicola* P. Henn. in Hedw. 1904, p. 80. — Ma- 1417

culis fuscidulis; æcidiiis hypophyllis sparsis vel gregariis, nervos sequentibus, pallide fuscidulis; pseudoperidiis cupulatis, margine fimbriatis, contextu cellulis polyhedricis, granulato-subreticulatis 20-30 μ .; sporis subglobosis, ellipsoideis vel ovoideis, flavido-fuscidulis, 11-20 \times 10-16.

Hab. in foliis *Dalechampiæ*, in viridario Musei, Rio de Janeiro, Brasiliæ (C. ULE).

68. *Æcidium cornu-Cervi* P. Henn. Fungi Amaz. I, p. 163, fig. III 1418

(Hedw. 1904). — Æcidiiis ramicolis eos varie deformantibus; gallis cornutis xylariiformibus vel ramossimis usque ad 10 cm. diam., ferrugineo-cinereis; pseudoperidiis semiimmersis dense gregariis cupulatis, alutaceis margine pallidis, fimbriatis v. laceratis; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis; sporis subgloboso-angulatis, levibus, 15-18 \times 12-16.

Hab. in caulibus *Dalechampiæ* sp., Rio Juruá Amer. merid. — Notabilissima species, ramos omnino deformans, ab *Æc. Dalechampiæ* et *Æc. dalechampiicola* omnino diversa.

69. *Æcidium tragiicola* P. Henn. Fungi Amaz. I, pag. 167 (Hedw. 1419

1904). — Maculis rotundato-angulatis, flavo-fuscidulis; pycnidiiis punctiformibus atris; æcidiiis hypophyllis interdum epiphyllis, pseudoperidiis suborbiculariter aggregatis, cupulatis, ferrugineo-pallescentibus, contextu cellulis oblonge vel rotundato-angulatis reticulatis, hyalino-fuscidulis; sporis subgloboso-angulatis, flavo-fuscidulis, 12-18 μ .

Hab. in foliis *Tragiæ fallacis*, Però, Cerro de Cumbasso, Amer. merid.

70. *Æcidium Turneræ* P. Henn. Fungi Amaz. I, p. 171 (Hedw. 1904). 1420

— Maculis ferrugineis effusis; æcidiis hypophyllis; pseudoperidiis aggregatis, semiimmersis, cupulatis, fuscidulis, margine albido fimbriato, contextu cellulis subrotundato-polyhedricis, hyalino reticulatis ca. 20-30 μ . diam.; æcidiosporis subgloboso-angulatis, hyalino-fuscidulis, levibus, 20-25 μ .

Hab. in foliis *Turneræ ulmifoliæ*, Tarapoto, Perú Amer. merid.

71. *Æcidium violascens* Trelease, Harrim. Alaska Exped. Crypt. 1421 pag. 37. — Maculis latis, irregularibus, effusis, præsertim in epiphyllis violaceis, sæpe nervisequis; soris hypophyllis, vix 0,5 mm. diam., hemisphæricis, irregulariter confertis juxta nervos; pseudoperidiis inclusis, non marginatis, cellulis irregulariter oblongis, 30-40 \times 20, ruguloso-asperulis; æcidiosporis e polygonio globosis v. ellipsoideis, minute verruculosi, 22-35 \times 22-28.

Hab. in foliis *Geranii erianthi*, Kadiak (TRELEASE), Kukak Bay, Alaska (SAUNDERS). — Ab *Æc. Geranii* præcipue macularum colore, sporis majoribus præ ceteris diversa. Nervi foliorum fungo invasi leviter incrassantur.

72. *Æcidium subincarnatum* P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1422 1904). — Maculis rufobrunneis rotundatis vel effusis interdum bullato incrassatis; æcidiis plerumque hypophyllis, interdum epiphyllis roseolo-flavidis; pseudoperidiis dense aggregatis, primo hemisphærico-clausis, dein cupulatis, flavido-carneis, fuscidulis, contextu cellulis oblonge v. rotundato-polyhedricis, incarnatis, 20-40 μ . diam.; æcidiis subgloboso-angulatis, 15-20 \times 13-17 hyalino vel flavo-incarnescentibus.

Hab. in foliis *Sterculiaceæ* cujusdam, St. Claras Rio Jurua Amer. merid.

73. *Æcidium cerrense* P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1904). 1423 — Maculis rotundatis vel effusis incrassatis, fusco-nigricantibus; pycnidiis punctiformibus, subhemisphæricis atris, dein vertice niveis; æcidiis hypophyllis, oppositis, subimmersis, cupulatis, ferrugineis, contextu cellulis rotundato-vel oblongo-polyhedricis, reticulatis, ca. 20. μ . diam.; æcidiosporis subgloboso-angulatis, fuscidulis, levibus, 10-15 \times 10-13.

Hab. in foliis *Burseraceæ*? Perú Cerro do Escaler, Amer. merid.

74. *Æcidium uredinoidis* P. Henn. Fungi Amaz. IV, in Hedw. 1904, 1424 p. 58. — Maculis subrotundatis vel late effusis folium pro parte destruentibus, atrofusciis, rugulosis; æcidiis hypophyllis late effusis,

pseudoperidiis cupulatis, pulvinatis, margine pallido fimbriatis, confluentibus, dein flavido- vel ferrugineo-farinosis, contextu cellulis polyhedricis reticulatis; aecidiosporis subglobosis vel ellipsoideis, angulatis, hyalino-fusculis, 16-22 μ 14-20.

Hab. in foliis Sapindaceae cujusdam, Rio Juruá Brasiliae.

75. *Aecidium malvicolum* Arthur Bull. Torr. Bot. Cl. 1904, pag. 6. 1425

— Pycnidiis epiphyllis, congestis, punctiformibus melleo-aurantiacis, immersis, subepidermicis, globosis, 100-125 μ . diam.; ostioli periphysibus numerosis, 38-80 μ . longis; aecidiis hypophyllis, in circulos, usque 10 mm. diam., dispositis; pseudoperidiis brevibus, cylindraceis, margine erectis vel saepe revolutis, erosio; aecidiosporis globosis 14-22 v. 16-24 μ . diam., episporio hyalino, tenui, 1,5 μ . lato, minute et aequaliter verrucosulo.

Hab. in foliis Althaeae roseae, Callaway, Nebraska, Malvastris coccinei, Wakeeney, Kansas et Callirrhoeis involucratae Rocks County, Kansas, Amer. bor.

76. *Aecidium bomolense* Sydow in Ann. Mycol. 1904, p. 351. — Pycni- 1426

diis numerosis, epiphyllis; aecidiis hypophyllis maculis orbicularibus flavis v. flavo-brunneis usque 1 cm. diam. insidentibus, laxe et irregulariter in greges maculam explentes dispositis, cupulatis, margine lacero, revoluti, albido; aecidiosporis angulato-globosis, hyalino-flavescentibus, subtiliter verruculosi, 17-25 μ . diam.

Hab. in foliis vivis Adeniae (sec. Ophiocauli) spec. in M. Bomole Africae orient. germanicae (A. KARASEK).

77. *Aecidium passifloricolum* P. Henn. Fungi Amaz. I, p. 168 (Hedw. 1427

1904). — Maculis rotundato-angulatis, flavo-brunneolis; aecidiis hypophyllis concoloribus, pseudoperidiis pulvinato-discoideis, dein cupulatis, pallidis, cellulis rotundato-polyhedricis, hyalino-reticulatis, ca. 20-30 μ .; aecidiosporis subgloboso-angulatis, flavidulis, 15-20 μ . episporio levi, hyalino.

Hab. in foliis Passiflorae spec. Perú, Tarapoto, Amer. merid.

— Ab *Aecidio Passiflorae* sporis duplo crassioribus mox dignoscitur.

78. *Aecidium Passiflorae* P. Henn. in Engl. Bot. Jahrb. 1903, p. 43. 1428

— Maculis flavidis, rotundatis, pycnidiis epiphyllis, punctiformibus, flavo-brunneis; aecidiis oppositis sparsis, pseudoperidiis sparsis vel rotundato-dispositis, plano-cupulatis, flavidis, margine albido fimbriatis; contextu cellulis oblongo-angulatis, flavidulo-hyalinis, reticulatis, 20-30 μ . diam.; aecidiosporis subglobosis, hyalino fusculis, levibus, 7-10 μ . diam.

Hab. in foliis Passifloræ spec., Ost-Usambara Africæ orient.

(ZIMMERMANN).

79. *Æcidium miryense* P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1904). 1429

— Maculis rotundatis vel effusis, ochraceo- vel rufo-fusculis vix incrassatis; pycnidiis punctiformibus, fusco-atris; æcidiis oppositis hypophyllis, pseudoperidiis gregariis cupulatis, alutaceis, margine pallidis subfimbriatis; contextu cellulis rotundato-polyhedricis, 20-30 μ ., reticulatis, hyalinis; æcidiosporis subgloboso-angulatis, intus hyalino-flavidulis, 10-16 μ ., levibus.

Hab. in foliis Guareæ spec. Rio Juruá, Juruá-Miry, Amer. merid. — Ab *Æc. Guareæ* præcipue diversum, quia non galligenum.

80. *Æcidium Guareæ* P. Henn. Fungi Amaz. I, p. 168 (Hedw. 1904). 1430

— Æcidiis cauliculis flori- vel foliiculis et bullato-deformantibus, incrassatis, effusis, alutaceo-cinereiscentibus; pseudoperidiis semimimmersis, cupulatis, pallide alutaceis, dense gregariis; contextu cellulis rotundato- vel oblongo-polyhedricis, reticulatis, hyalino-fusculis, ca. 20-30 μ . d.; æcidiosporis subgloboso-angulatis, 15-23 μ ., episporio brunneolo, levi.

Hab. in ramulis, foliis etc. Guareæ sp., Rio Juruá, Bom Fim, Belem, Marary, Amer. merid.

81. *Æcidium porosum* Peck — Syll. VII, p. 787. — var. *anodonta* 1431

Speg. in Ann. Soc. Cient. Argent. 1899, p. 276.

Hab. ad folia viva Viciæ Patagonicæ, prope Laco Muster, Amer. occid. (N. ILLIN). — Specimina patagonica a typo recedunt pseudoperidiis ore integro donatis et sporis paullulo minoribus. Cellulæ exoperidiis loricatæ subhexagonæ 20-30 \times 20-25, crasse tunicatæ et grosse radiatim rugulosæ subhyalinæ; uredosporæ globosæ vel e mutua pressione plus minusve angulosæ vel deformatæ, 18-22 \times 18-20, episporio hyalino, endoplasmate aurantiaco.

82. *Æcidium Toræ* P. Henn. Engl. Bot. Jahrb. 1903, p. 42. — Maculis 1432

rotundatis, flavidis vel fusciculis; æcidiis hypophyllis; pseudoperidiis dense gregariis, cupulatis, aureis, margine albido fimbriatis; contextu cellulis oblonge polyhedricis, reticulatis, flavo-hyalinis 25-40 \times 15-20; æcidiosporis subglobosis, angulatis, intus aurantiis 10-15, episporio hyalino levi.

Hab. in foliis Cassiæ Toræ, Ost-Usambara Africæ orient. (ZIMMERMANN).

83. *Æcidium Dielsii* P. Henn. Fungi Africæ orient. II, in Bot. Jahrb. 1433

XXVIII, pag. 34. — Maculis fusciculis; æcidiis amphigenis, in-

crassatis galliformibus, ochraceis; pseudoperidiis aggregatis, cupulatis v. subcylindratis, margine albido-subfimbriatis; contextu cellulis polyhedricis, reticulatis, 30-50 μ . diam. hyalinis æcidiosporis subglobosis vel ovoideo-ellipsoideis, angulatis, 23-30 \times 22-27, episporio crasso granulato.

Hab. in foliis *Crotalariae* spec., Capland (DIELS).

84. *Æcidium Cytisi* Voss — Syll. XI, p. 114. — forma *ramulicola* 1434
Sacc. Notæ Mycol. in Syd. Ann. Mycologici 1903, n. 1, p. 24.

Hab. in ramulis vivis *Cytisi hirsuti* in collibus Montello, Volpago (Treviso) Italiae borealis. — Ramulorum partes *Æcidio* correptæ leviter et æqualiter tumescunt.

85. *Æcidium Bossiæ* P. Henn. Fungi Austral. occ. II, in Hedw. 1435
1901, p. 352. — Maculis brunneolis; æidiis hypophyllis sparsis; pseudoperidiis subaggregatis, cupulatis, brunneolis, ca. 0,2-0,3 mm. diam., margine pallido subfimbriatis; contextu cellulis polyhedricis, reticulatis, ca. 20-30 μ . diam.; æcidiosporis ellipsoideis, levibus, 12-22 \times 12-18, hyalinis.

Hab. in foliis *Bossiæ* linophyllæ, King Georges Sound, Austral. occid.

86. *Æcidium Inouyei* P. Henn. Engl. Jahrb. 1902, XXXII, p. 37. — 1436
Pseudoperidiis paginam foliorum totam occupantibus, immersis primo clausis, dein cupulatis, ca. 0,5 mm. diametro; æcidiosporis subglobosis vel ellipsoideis, polyhedricis, flavidulis hyalinescentibus, intus granulatis, 18-26 \times 18-20, episporio levi, flavo.

Hab. in foliis *Amphicarpæ* sp. Sakawa, Tosa Japoniæ. — Probabiliter st. æcidialis *Uromycetis* sp.

87. *Æcidium Sophoræ* Kus. Bot. Mag. Tokyo 1904, VIII, p. 203, 1437
f. 1. — Pycnidiis amphigenis, sæpius epiphyllis, punctatis, ostioli periphysibus capillaribus; sporulis ellipsoideis vel globosis, hyalinis; æidiis amphigenis, sæpius hypophyllis, petiolicolis ramicolisque, irregulariter congregatis, sæpe folii magnam partem occupantibus; pseudoperidiis aggregatis, subcircinantibus, minutis, tubulosis, margine angusto lacerato et reflexo; cellulis rectangularibus, unistratosis, 40-50 \times 20-25, pariete tenui; æcidiosporis subinde compressione angulosis, 25-35 μ . diam., episporio tenui minute verrucoso.

Hab. in foliis *Sophoræ platycarpæ*, Hakone in prov. Sagami Japoniæ (Prof. J. MATSUMURA).

88. *Æcidium Purpusiorum* P. Henn. in Hedw. 1903, p. (189). — *Æci-* 1438
diis fructicolis et deformantibus; pseudoperidiis densis plus mi-

nus elongato-cylindræis, usque ad 12 μ . longis, ca. 0,8 μ . cr., roseis; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis; æcidiosporis subglobosis, ovoideis vel ellipsoideis, intus aurantio-oleosis, episporio hyalino, radiato-striato, 25-38 \approx 18-30.

Hab. in fructibus *Cratægi*, Ixtacihuatle, Mexico (C. A. PURPUS).

89. *Æcidium Cardiandræ* Diet. in Bot. Jahrb. 1903, p. 630. — Pseudoperidiis hypophyllis in maculis flavis vel brunneolis, minutis vel usque 4 mm. latis, interdum confluentibus, cylindræis, margine recto vel modice recurvato denticulato, ca. 180 μ . diam.; cellulis pseudoperidii valde regularibus, sexangularibus, 21 μ . latis, verrucosis; æcidiosporis polyhedricis, globosis vel ellipsoideis, 22-26 \approx 18-25, subtiliter verrucosis.

Hab. in foliis *Cardiandræ alternifoliæ*, Nikko Japoniæ (KUSANO).

90. *Æcidium Hydrangæ-paniculatæ* Diet. in Bot. Jahrb. 1903, p. 630. — Pseudoperidiis in maculis magnis irregularibus flavis vel rubiginosis, medio sæpe arecentibus, hypophyllis, in acervulos circulares usque 8 mm. latos congestis, cupuliformibus, margine recurvato denticulato præditis; sporis oblongis 21-27 \approx 13-18, episporio subtilissime verrucoso tenui vestitis.

Hab. in foliis *Hydrangæ paniculatæ*, Nikko Japoniæ (KUSANO).

91. *Æcidium ribesicola* Speg. Myc. Arg. ser. I, in Ann. Soc. Cient. Arz. 1899, p. 267. — Maculis fere nullis pallescentibus, foliiculis, raro petioli- vel floricolis; pseudoperidiis 0,5-0,7 mm. alt., 0,20-0,25 mm. diam., densissime constipatis atque pulvinulum sat prominulum superne applanatum ostiolato-alveolatum, margine obtusum repando-orbiculatum 2-6 mm. diam., efficientibus, pallide flavescens; tunica pseudoperidii tenui alba e cellulis hexagonis 25-30 μ . diam. crasse tunicatis, dense minuteque verrucosis efformata; æcidiosporis globosis, levibus, 22-25 μ . diam. aurantiacis.

Hab. in foliis vivis *Ribis magellanici* pr. Lago Nahuelhuapi Argentinæ.

92. *Æcidium thlaspianum* Syd. in Cæster. bot. Zeitschr. 1902, n. 5. — *Æcidii* hypophyllis, maculis flavidis insidentibus, irregulariter distributis vel paucis laxè aggregatis, cupulatis, margine inciso, recurvato, albido; æcidiosporis angulatis, subtilissime verrucosis, flavescens, 14-18 μ . diam. vel 16-23 \approx 14-18.

Hab. in foliis *Thlaspeos ceratocarpi* in Songaria (SCHRENK).

93. *Æcidium Biscutellæ* Noelli, Malpighia 1902, vol. XVI. — *Æcidiiis* 1443
 amphigenis in maculis minutis circularibus vel ellipticis luteis,
 1,6-2,5 mm. diam. insidentibus; pycnidiis sparsis, 2-3 congestis,
 aurantiacis, 210-240 × 145-220; sporis subrotundis 1,2 μ . diam.;
 pseudoperidiis aurantiacis in circulum dispositis, in singula macula
 4-14 dense congestis, erumpentibus e cellulis fere ovalibus, hyalinis
 transverse sulcatis, rugosulis polygonalibus, 15-30 × 12-16, compo-
 sitis; æcidiosporis congestis, irregularibus, angulosis, fere circula-
 ribus vel polygonalibus, hyalino-marginatis, intus luteo-aurantiacis,
 12-21 μ . long. et 12-18 μ . latis.

Hab. in foliis *Biscutellæ* levigatæ, in Monte Musiné prope
 Susa Italiæ bor.

94. *Æcidium melanotes* Syd. Ann. Mycol. 1903, p. 20. — *Æcidiiis* 1444
 amphigenis, in hypophyllo magis prominentibus, in acervos ro-
 tundatos, 2-10 mm. diam., bullatos, stromatiformes compactos in
 sicco (an etiam in vivo?) atros, superficie asperulos rhytismoideos
 dispositis, profundeque immersis; contextu cellulis tabulari-polyhe-
 dricis flavido-hyalinis deorsum cuneato-attenuatis parte superiore
 verrucosis, basim versus levibus, 24-48 × 19-30 composito; æcidio-
 sporis globosis, subglobosis vel angulatis, subtiliter verruculosi,
 flavescens, apice usque 7 μ . incrassatis, 21-28 μ . diam., epi-
 sporio tenui.

Hab. in foliis vivis *Tetrantheræ* amaræ in Monte Salak
 ins. Javæ (PENZIG).

95. *Æcidium Machili* P. Henn. Einige neue japan. Ured. III, in Hedw. 1445
 1902, p. 21. — Maculis rotundato-explanatis, fuscis, subincrassatis;
 æcidiiis hypophyllis, pseudoperidiis sparsis v. aggregatis, semiim-
 mersis, cupulatis, fusco-brunneis, margine subintegris; æcidiosporis
 subgloboso-angulatis, 20-30 μ . diam., hyalino-fusculis.

Hab. in foliis *Machili* *Thumbergii*, Tosa Japoniæ.

96. *Æcidium rionegrense* P. Henn. Fungi Amaz. I, p. 166, Hedw. 1446
 1904. — Maculis valde incrassatis, rufo-brunneis nigricantibus,
 rotundatis; æcidiiis hypophyllis sparsis v. gregariis; pseudoperidiis
 subimmersis, aggregatis, dein cupulatis, ochraceis, margine fimbria-
 tis; contextu cellulis rotundato-polyhedricis, reticulatis, 30 × 20;
 sporis subgloboso-angulatis, flavido-fusculis, 17-24 μ .

Hab. in foliis *Guatteria* *Schomburgkianæ*, Rio Negro,
 Manaos, Amer. merid. — Format in foliis gallas pulvinatas rufas
 usque 3 cm. cr.

97. *Æcidium amazonense* P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1447

1904). — Maculis rotundatis v. effusis, atroferrugineis, subincrassatis; æcidiis hypophyllis; pseudoperidiis aggregatis in maculis dispositis, subimmersis, cupulatis, ferrugineis, margine fimbriatis; contextu cellulis rotundato-polyhedricis, hyalinis, reticulatis, ca. 30 μ . diam.; æcidiosporis subgloboso-angulatis, subhyalino-fuscidulis, 20-25 μ .

Hab. in foliis coriaceis et tomentosis *Guatteriae* spec. Perù, Rio Amazonas, Amer. Merid. — Ab *Æc. Guatteriae* Diet. præcipue sporis levibus distinctum.

98. *Æcidium mararyense* P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1448 1904). — Maculis rotundatis v. effusis atrofuscis; pycnidiis punctiformibus atris; æcidiis hypophyllis oppositis gregariis, semiimmerso-cupulatis, mox pulverulentis, ferrugineis; contextu cellulis rotundato- v. oblonge polyhedricis, reticulatis, hyalino-fuscidulis, plerumque 20-30 μ . diam; æcidiosporis subgloboso- v. ellipsoideo-angulatis, olivaceo-fuscis, 18-26 μ .

Hab. in foliis *Guatteriae* spec., Rio Jurua, Marary Amer. merid.

99. *Æcidium huallagense* P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1448 1904). — Maculis subincrassatis rotundato-angulatis, ochraceo-luteis vel fuscidulis, sparsis; pycnidiis punctiformibus atris; æcidiis hypophyllo-oppositis in maculis cinereis, semiimmersis, cupulatis, pallido-fuscidulis; contextu cellulis rotundato-vel oblonge polyhedricis, reticulatis, hyalino-fuscidulis; sporis subgloboso-angulatis, hyalino-flavidis vel fuscidulis, 15-20 μ .

Hab. in foliis *Guatteriae* alutaceæ et alius *Anonaceæ* cujusdam, Perù Tarapoto, Amer. merid. — Maculae superne ochraceæ, inferne griseæ. Ab *Æc. Xylopiæ* diversum.

100. *Æcidium juruense* P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1904). 1450 — Maculis rotundatis fusco-atris, inflato-incrassatis; pycnidiis punctiformibus, atris; æcidiis hypophyllis bullatis, aggregatis immersis, flavidis, cupulatis, 0,2-0,3 mm diam.; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis, plerumque 30 \approx 20; æcidiosporis subgloboso-angulatis, hyalino-brunneolis, levibus, 13-20 μ .

Hab. in foliis *Monopsideis* polyphlebæ, Rio Jurua, Jurua-Miry, Amer. bor.

101. *Æcidium Popowiae* P. Henn. in Engl. Bot. Jahrb. 1903, p. 42. 1451 — Maculis valde incrassatis, rufobrunneis, nigricantibus, rotundatis vel explanatis; pycnidiis epiphyllis punctiformibus, subhemisphaericis, atro-brunneis; æcidiis oppositis, galliformibus in-

crassatis; pseudoperidiis cylindraceis usque ad 1 mm. elongatis, aurantiis; contextu cellulis oblongis, angulatis, reticulatis, intus flavido-oleosis 18-30 \times 13-18; æcidiosporis, subglobosis vel ellipsoideis, intus aurantio-oleoso-guttulatis, 14-17 \times 13-16; sporulis ellipsoideis, hyalinis, 2,5 \times 1,5.

Hab. in foliis Popowiae gracilis, Dar-es-Salam, Zanzibar, Afr. orient. (ENGLEB).

102. *Æcidium Maublancii* Sydow Ann. Mycol. 1904, p. 351, *Æcidium* 1452
mexicanum Maubl. Bull. Soc. Myc. Fr. 1904, p. 73, t. VII, f. 9, nec *Æc. mexicanum* D. et H. (in Cisso). — Maculis parvis angulatis, flavis vel melleis; pycnidiis epiphyllis, brunneis, ovoideis 200-260 \times 115-130; æcidiis hypophyllis, gregariis; pseudoperidiis elongatis, longe cylindraceis, 1,2-2 mm. longis, aurantiis; cellulis pseudoperidii angulatis, difformibus, hyalinis, intus aurantiacis, 14-28 μ . diam.; æcidiosporis subglobosis, rarius oblongis, angulatis, 13-20 \times 11-15, episporio hyalino, levi, endoplasmate guttulado-aurantiaco.

Hab. in foliis Mahoniae in Mexico (BONANSEA).

103. *Æcidium Fendleri* Tracy et Earle in Plantae Backerianae fasc. I, 1453
fungi p. 17. — Fere semper hypophyllum; maculis magnis, 1 cm. latis, rubris, luteo-marginatis; pseudoperidiis sparsis, lucentibus, luteis, 400 μ . diam., margine irregulariter laceratis, recurvatis; cellulis irregulari-polygonalibus, conspicue rugulosis, 20-30 μ . diam.; sporis subglobosis, lucentibus, luteis, minute rugulosis, 20 μ . diam.; pycnidiis luteo-melleis, inconspicuis, 200 μ . diam.

Hab. in foliis Berberidis Fendleri, Manaos, Colorado, Amer. bor. — *Æc. Berberidis* affine.

104. *Æcidium Berberidis-ruscifoliae* Henn. in Hedw. 1902, p. (62). — 1454
Æcidiis hypophyllis totam paginam occupantibus; pseudoperidiis gregariis, hemisphaericis clausis, subbrunneolis, dein vertice apertis, vix fimbriatis, pallide flavidis, 0,3 mm. diam.; contextu cellulis rotundato-angulatis, reticulis hyalino-flavidulis, ca. 20-24 μ . diam.; æcidiosporis subglobosis, angulatis flavido-pallidis, 10-15 μ . diam.

Hab. in foliis vivis Berberidis ruscifoliae, Cordoba Argentinae.

105. *Æcidium Leontices* Tranzschel in Acta Hort. Botan. Univers. 1455
Imperial. Jurgevensis, vol. II, fasc. II, p. 91, 1901. — Maculas flavas in pagina superiore foliorum crassas efformans; pseudoperidiis hypophyllis, rarius nonnullis epiphyllis, dense gregariis,

sæpe totos lobulos foliorum occupantibus, poculatis, margine vix exserto (saltem in exemplaribus junioribus tantum visis); cellularum pseudoperidii membranæ hyalinæ parte exteriori valde incrassata (usque ad 9 μ .), parte interiore verrucosa, contentu aurantiaco; æcidiosporis angulato-rotundatis v. ellipsoideis, 20-26 \times 16-20, membrana hyalina, subtiliter verrucosa, contentu aurantiaco. Pycnidia non visa.

Hab. in fol. *Leontices Leontopetali*, prope As'chabad Turcomaniæ.

106. *Æcidium punctatum* Pers. — Syll. VII, p. 775. — *Æcidium* 1456
punctatum D. Sacc. — Pycnidiis hypophyllis dense gregariis, hemisphaericis, prominulis, $\frac{1}{8}$ mm. diam. e hyalino rubescentibus, nitidulis, tenui-membranaceis, contextu distincte laxo parenchymatico, radiante, poro pertusis; basidiis fasciculatis bacillaribus 16 \times 2; sporulis ovoideis, 3 \times 1,5, hyalinis.

Hab. in foliis vivis *Anemones coronariæ*, Firenze (Prof. ANDR. FIORI). — Ob *Æcidium* deficiens et pycnidia exclusive hypophylla forma distinguenda videtur.

107. *Æcidium Ranunculacearum* DC. — Syll. Fung. VII, p. 776. — 1457
 var. *Aleæ* Trav. in D. Sacc. Myc. ital. n. 1264. — A typo mox differt habitatione numquam in laminis foliorum et quia matricem maxime deformat.

Hab. in caulibus, petiolis pedunculisque *Ranunculi bulbosi* subsp. *Aleæ*, in horto botanico Patavino, Majo 1903. — Inter adest socia *Urocystis Anemones*.

108. *Æcidium occidentale* Arthur, Bull. Torr. Bot. Cl. 1904, pag. 7. 1458
 — Pycnidiis amphigenis, in parvulos greges dispositis, stipatis, prominulis, melleo-aurantiacis, punctiformibus, immersis, subepidermicis, globosis, sæpe depressis, 110-150 μ . diam.; ostioli periphysibus liberis sæpe agglutinatis, 30-75 μ . longis; æcidiis hypophyllis in greges circulares v. oblongatos dispositis, subcongestis, latis; pseudoperidiis pallidis, margine erectis, erosis; æcidiosporis globosis, 24 \times 18 v. 29 \times 23; episporio 2,5-3 μ . lato, hyalino, dense minuteque verruculoso.

Hab. in foliis *Clematidis Douglasii*, Pullman, Washington, Moscow Idaho, Helena Montana, Amer. bor. — *Æc. Clematidis* affinis species.

109. *Æcidium Delphinii* Barthol. in Journ. of Mycol. 1902, p. 173. 1459
 — Hypophyllum; maculis epiphyllis, luteo-brunneis, pallide marginatis; pseudoperidiis circinato-congestis, 3-5 mm. diam., intense

aurantiacis, in pag. sup. irregulariter sparsis; æcidiis 250-350 μ . diam., margine lacerato-frangiatis, dein levibus, expansis; pycnidiis paucis vel indistinctis; æcidiosporis irregularibus, subglobosis vel angularibus, episporio rugoso, pluri-nucleatis, aurantiacis, 20-25 μ . diam.

Hab. in foliis Delphinii scopulorum, Steamboat Springs, Colorado, Amer. bor. (E. BETHEL). — Species valde noxia.

110. *Æcidium dakotense* Griffiths, Bull. of the Torrey Bot. Club. 1460
1902, p. 300. — Pycnidiis brunneis vel brunneo-nigris, sub lente luteis, hypophyllis, æqualiter sparsis, prominentibus; æcidiis hypophyllis sparsis, sæpe totum folium bullatum occupantibus, margine laceratis recurvatisque; æcidiosporis globosis vel pro mutua pressione angulosis, 15-18 μ . diam., episporio levi, tenui, in angulis incrassato.

Hab. in foliis Aquilegiæ canadensis, Big Stone Lake, Dakota, Amer. bor.

111. *Æcidium Aikeni* Syd. in Ann. Myc. I, 1903, p. 334. — Pycnidiis 1461
amphigenis, sæpius hypophyllis, sparsis, solitariis, numerosis, æque per folium distributis, in sicco brunneis (in vivo melleis?). æcidiis eadem distributione qua pycnidiis, sine maculis, plerumque per totum folium vel per magnam folii partem æque distributis, solitariis numquam in greges dispositis, primitus hemisphæricis, dein cupulatis, margine recurvato, inciso; albido; æcidiosporis globosis, subglobosis v. angulatis, rarius ellipsoideis, plerumque apice leniter incrassatis, subtiliter verruculosus, flavescentibus, 19-25 μ . diam.; contextu cellulis valde irregularibus 26-35 \times 24-32 formato.

Hab. in foliis vivis Thalictri purpurascens, College Hill pr. Cincinnati in Ohio Americæ bor. (W. H. AIKEN).

112. *Æcidium Polygoni cuspidati* Diet. in Bot. Jahrb. 1903, p. 629. 1462
— Pseudoperidiis hypophyllis in acervulos circulares 3-4 mm. latos vel secundum nervos elongatos congestis, margine albo denticulato præditis; sporis globosis vel polyhedricis v. oblongis, 16-23 \times 15-20, subtiliter verrucosis.

Hab. in foliis Polygoni cuspidati, Nikko Japoniæ (KUSANO).

113. *Æcidium Atriplicis* Shear in Bull. of the Torr. Bot. Cl. 1902, 1463
p. 453. — Pseudoperidiis hypophyllis, plus minusve sparsis, 0.5-1 mm. longis, 240-320 μ . diam., erumpentibus, margine crenato-denticulatis; cellulis irregulariter pentagonis, 20-30 μ . d., dense reticulatis; sporis levibus, luteolis, irregulariter globosis, 20-24 μ . diam.

Hab. in foliis *Atriplicis Nuttallii*, Montrose, Colorado Amer. bor.

114. *Æcidium moricola* P. Henn. *F. javanici* novi, in Hedw. 1902, 1464 p. 140. — Maculis fuscidulis; æcidiiis hypophyllis, rare epiphyllis, sparsis; pseudoperidiis singularibus v. subaggregatis, primo tectis, dein cupulatis, ochraceo-fuscidulis; contextu cellulis oblonge v. rotundato-angulatis, flavo-brunneis, 14-20 \times 12-15; æcidiosporis subglobosis v. ellipsoideis, flavo-brunneolis, 16-23 \times 13-17.

Hab. in foliis *Mori indicæ* Javæ orient.

115. *Æcidium alaskanum* Trel., Harrim Alaska Exped. Crypt. p. 37. 1465 — Maculis pallidis, plerumque ellipticis, 5 \times 5-10 mm.; pycnidiis nullis; æcidiiis amphigenis, sed infra copiosioribus, 0,25 mm. lat., margine multifido, reflexo; cellulis pseudoperidii circ. 28 μ . diam.; æcidiosporis sublevibus, 16-20 μ . long., ellipsoideis.

Hab. in foliis *Habenariæ* et *Orchidis* variarum spp. in Alaskæ pluribus locis (TRELEASE, SAUNDERS, MACOUN, TWASTON). — Ab *Æcid. Orchidearum* (ad *Pucc. Moliniæ* spectante) pycnidiis nullis, cellulis pseudoperidii amplioribus, sporis minoribus etc. distinguendum.

116. *Æcidium Lillii-cordifolii* Diet. in Bot. Jahrb. 1903, pag. 629. 1466 — Pseudoperidiis hypophyllis in maculis rotundatis vel irregularibus usque 1 cm. latis, laxe gregariis, margine recurvato irregulariter lacerato vel denticulato præditis, flavidulis; æcidiosporis globosis vel late ellipsoideis, 20-23 \times 17-20, subtiliter verrucosis.

Hab. in foliis *Lillii cordifolii*, in prov. Hitachi Japoniæ (KUSANO),

117. *Æcidium magnatum* Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. 1467 — Maculis pallidis, circularibus; pseudoperidiis hypophyllis, cylindraceis, elongatis, margine laceratis; æcidiosporis luteis, subcylindraceis, 26-37, episporio verrucoso donatis.

Hab. in foliis *Vagueræ stellatæ* (= *Smilacina dentata*) Valley of the Teton, Montana, Amer. bor.

118. *Æcidium Zephyranthis* Shear in Bull. of the Torr. Bot. Club. 1902, p. 454. — Maculis circularibus, luteolis, 1-2 mm. diam.; sporulis globosis v. subglobosis, 2-3 μ . diam.; pseudoperidiis amphigenis, orbiculariter in greges 1-4 dispositis, 200-300 μ . diam.; cellulis irregulariter polygonalibus, 21-35 μ . diam., dense reticulatis; sporis luteolis levibus, irregulariter globosis, 18-25 μ . diam.

Hab. in foliis *Zephyranthis*, prope Tlalpam, Mexico Amer. borealis.

119. *Æcidium Mangaranga* P. Henn. in *Ergebn. der Kunene-Sam-* 1469
besi-Exped. pag. 163 (1902). — Maculis flavis effusis totum fo-
 lium tegentibus; pycnidiis epiphyllis, dense gregariis, minutis
 punctulatis, ceraceis, rufo-brunneis; æcidiiis hypophyllis oppositis,
 circulariter dispositis aggregatis, minutis, cupulatis, flavo-pallenti-
 bus, contextu cellulis polyhedricis, reticulatis, 20-26 μ . flavidis;
 æcidiosporis subgloboso-angulatis, 16-22 \times 15-20, levibus.
Hab. in foliis Crini spec. Kubango pr. Kneio, Afr. austr.
120. *Æcidium pallidum* Schneid. — Syll. VII, pag. 789. — Teste
 Tranzschel *Ann. Mycol.* 1904, p. 157, non in *Lythro Salica-*
ria, sed in *Epilobio tetragono* provenit.
121. *Æcidium Basanacanthæ* P. Henn. *Fungi Amaz.* I, p. 166, Hedw.
 1904 et in Hedw. 1896, p. 259, sub *Æc. Randiæ*.
Hab. in foliis *Basanacanthæ* sp. Rio Juruá, Marary, Amer.
 merid. — Nomen mutatum ex eo quod non in *Randia* sed in *Basa-*
nacantha nascitur. Gallas firmas nigras format.
122. *Æcidium baccharidophilum* Speg. Not. synonym. pag. 9 in *Ann.*
Mus. Nac. Buenos. Ayres 1903, tom IX. Ita nominandum. *Æcid.*
baccharidicolum Speg. 1898, nec P. Henn. (1896).
123. *Æcidium pseudo-columnare* J. Kühn. — Syll. VII, pag. 826.
 — Observante cl. Oud. in *Rev. Mycol.* 1902, ejus habitatio sic
 emendanda: a pede ad cacumen M. Blauen pr. Badenweiler.

UREDIO Pers. — Syll. VII p. 838, IX p. 327, XI p. 222, XIV p. 389,
 XVI p. 349.

1. *Uredo Verbesianæ-dentatæ* Syd. in *Cæster. bot. Zeitschr.* 1902, n. 5. 1470
 — Soris uredosporiferis hypophyllis, maculis orbicularibus ca.
 2 mm. latis, fuscis v. nullis insidentibus, mediocribus, 1-2 mm.
 diam. lana foliorum obtectis, obscure brunneis, pulverulentis; ure-
 dosporis globosis, subglobosis v. rarius late ellipsoideis, aculeatis,
 brunneis, 22-31 μ . diam., episporio ca. 4-6 μ . crasso.
Hab. in foliis vivis *Verbesinæ dentatæ*, pr. Quero et Am-
 bato *Æquatoriae* (F. G. LEHMANN).
2. *Uredo Pluchæ* Syd. in *Ann. Mycol.* I, 1903, p. 333. — Soris 1471
 uredosporiferis amphigenis, sine maculis, sparsis vel rarius hinc
 inde paucis aggregatis, punctiformibus, pulverulentis, cinnamo-
 meo-brunneis; uredosporis globosis, subglobosis, ovatis v. ellipsoi-
 deis, valide denseque aculeatis, brunneis 26-32 μ . diam. v. 30-40 \times
 23-28, episporio crassiusculo.

Hab. in foliis vivis *Pluchea camphorata*, Eustis, Lake Co., Florida Americæ bor. (G. V. NASH).

3. *Uredo Jasoniæ* Henn. in Hedw. 1902, p. (66). — Maculis fuscidulis; soris hypophyllis interdum epiphyllis sparsis, rotundatis, applanato-pulvinatis, flavidis, ca. 1 mm. diam.; sporis ovoideis vel ellipsoideis, hyalino-flavidulis, 22-30 \times 18-22, episporio striato-verrucoso.

Hab. in foliis vivis *Jasoniæ glutinosæ*, Lasnaca, in insula Cipro (O. WARBURG).

4. *Uredo Gaudichaudii* Syd. Ann. Mycol. 1903, p. 21. — Soris uredosporiferis hypophyllis, irregulariter sparsis, minutissimis, pulverulentis, ferrugineis; uredosporis globosis, subglobosis v. ovatis, aculeatis, brunneis, 20-30 \times 19-25.

Hab. in foliis *Blainvilleæ rhomboideæ*, Rio de Janeiro, Brasilis (GAUDICHAUD).

5. *Uredo banisteriicola* P. Henn. in Hedw. 1904, p. 80. — Maculis fuscidulis, rotundatis vel obsolete; soris amphigenis sparsis, rotundato-pulvinatis, cinnamomeis; uredosporis subglobosis, 20-25 \times 18-23, brunneis, verrucoso-echinatis.

Hab. in foliis *Polymniæ sylphiodidis*, Nova Friburgo, pr. Rio de Janeiro Brasilis (C. ULB).

6. *Uredo Asteromææ* P. Henn. Engl. Jahrb. 1902, XXXII, p. 37. — Soris hypophyllis sparsis, pustulatis diutius epidermide flava tectis; uredosporis subglobosis vel ellipsoideis polyhedricis, intus granulato-punctatis, 20-28 \times 18-24, episporio flavido.

Hab. in foliis *Asteromææ indicæ*, Urawa Japoniæ (N. NAUBO).

7. *Uredo Garcilassæ* P. Henn. Fungi Amaz. I, p. 160, Hedw. 1904. — Maculis indeterminatis, fuscidulis; soris hypophyllis gregariis, minutis, pulvinatis, pulverulentis, ferrugineis; uredosporis subglobosis v. ellipsoideis, fusco-brunneis, aculeato-asperatis, 15-20 \times 13-18.

Hab. in foliis *Garcilassæ rivularis*, Tarapoto Perù, Amer. merid.

8. *Uredo scopigena* P. Henn. Fungi Amaz. I, p. 160 (Hedw. 1904). — Maculis fuscis explanatis, soris amphigenis caulibusque plerumque dense gregariis confluentibus, folia utrinque omnino tegentibus, ferrugineis, ramis scopiforme deformantibus; sporis ovoideis, ellipsoideis, subglobosis, brunneis, 18-35 \times 14-24, aculeatis.

Hab. in foliis caulibusque *Eupatorii spec.* Rio Juruá, Juruá-Miry, Amer. merid.

9. *Uredo Crepidis-integræ* Lindr. Acta Soc. Fauna et Fl. fennica 1902, 1478
XXII, n. 3, p. 11. — Soris minutis, punctiformibus, zona peregigua pallida circumdatis, epidermide cinctis, sparsis, brunneis; uredosporis subglobosis v. breve late ellipsoideis, 18-28 μ . diam.; membrana flavida, æquali, 2,2 μ . cr; poris germinantibus 4-6, episporio supra eos non protuberante.
Hab. in foliis (caulibusque?) *Crepidis integræ*, Nagasaki alibique in Japonia.
10. *Uredo Crepidis-japonicæ* Lindr. Acta Soc. Fauna et Fl. fennica 1479
1902, XXII, n. 3, p. 11. — Soris amphigenis, sed sæpius hypophyllis, cinnamomeis, rotundatis, minutis, maculas non generantibus, epidermide initio cinctis; uredosporis subglobosis v. breve late ellipsoideis, 14-18 μ . diam., membrana flavida, crebre tenuiter spinulosa, tenni, æquali, 1 μ . cr.; poris germinat. ternis, inordinatis, episporio supra eos non protuberante.
Hab. in foliis *Crepidis japonicæ*, Queensland Australiæ. — Sporibus minoribus, subglobosis etc. a ceteris speciebus crepidiculis dignoscitur.
11. *Uredo Andryalæ* Syd. in (Ester. bot. Zeitschr. 1902, n. 5. — Soris 1480
uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, epidermide fissa cinctis, brunneis, pulverulentis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis, 22-27 \approx 16-23, poris germinationis binis instructis.
Hab. in foliis vivis *Andryalæ integrifoliæ*, Limoges Galliæ (E. LAMY).
12. *Uredo boopidicola* Speg. Myc. Arg. Ser. I, in An. Soc. Cient. Arg. 1481
1899, p. 267. — Maculis quandoque nullis, quandoque pallescenti-flavescentibus, indeterminatis, foliiculis, rarius cauliculis; soris erumpentibus, hemisphæricis, 0,5-1 mm. diam., subcompactiusculis, e ferrugineo-atris; uredosporis subglobosis, e mutua pressione obtuse irregulariterque angulosis, 25-30 \approx 20-30, levibus tenuiter tunicatis, nubiloso-farctis, ferrugineis.
Hab. in foliis vivis *Boopidis squarrosæ*, prope Rio Chico Argentinæ.
13. *Uredo Palicureæ* Fungi Amaz. I, p. 160, Hedw. 1904. — Maculis 1482
roseolis vel flavide pallidis, sparsis vel gregariis confluentibusque versiformibus; soris plerumque epiphyllis vel hypophyllis cauliculisque, sparsis vel gregariis, rotundato-pulvinatis, pallidis v. roseolis; sporibus subglobosis, ovoideis v. ellipsoideis, hyalinis interdum roseolis v. fuscidulis, 12-20 \approx 10-18, minute aculeato-subechinatis.

Hab. in foliis caulibusque *Palicourea* spec. Huallaga, Yurimaguas; Perù Amer. merid.

14. **Uredo geophilicola** P. Henn. *Fungi Amaz. I*, p. 161, Hedw. 1904. 1483
— Maculis rotundatis vel effusis, fuscis; soris epiphyllis, circulariter dispositis vel gregarie effusis, pulvinatis, flavo-ferrugineis, dein pulverulentis; sporis ovoideis, hyalino-fusculis, asperatis, $15-23 \approx 12-18 \mu$.

Hab. in foliis *Geophilæ trichoginis*, Huallaga, Yurimaguas, Perù Amer. merid. — Ab affini *U. Geophilæ* sporis distincte spinulosis differt.

15. **Uredo Ancylothi** P. Henn. in *Bot. Ergebn. der Kunene-Exped.* p. 158 (1902). — Maculis fusculis v. obsoletis; soris hypophyllis sparsis v. aggregatis confluentibusque flavidis v. sulphureis, pulverulentis; sporis ovoideis vel ellipsoideis, $22-32 \approx 18-23$, episporio asperato, flavo.

Hab. in foliis *Ancylothi fulgidi*, Quiriri Africae austr.

16. **Uredo Cephalanthi** Arthur in *Bull. of the Torr. Bot. Club*. 1902, pag. 231. 1485
— Soris generaliter hypophyllis, parvulis, irregulariter bullatis, sine ordine sparsis, pallidis, diu epidermide velatis; sporis initio pedicellatis, obovato-globosis, $16-20 \approx 20-26$, episporio 1 μ . crasso donatis, minute echinulatis, poris 4 æquatorialibus.

Hab. in foliis *Cephalanthi occidentalis*, Palmetto, Fla. Amer. bor.

17. **Uredo Cinchonæ** P. Henn. *F. javanici novi*, in Hedw. 1902, p. 140. 1486
— Maculis fusculis v. obsoletis; soris epiphyllis, sparsis, minutissimis, pulvinatis, diutius tectis, brunneolis, ca. 0,3 mm. diam.; poris ovoideis v. ellipsoideis, intus flavidis, $13-18 \approx 10-15$, episporio hyalino, granulato-verrucoso.

Hab. in foliis *Cinchonæ* spec. Java.

18. **Uredo Pæderiæ** Syd. in *Österr. bot. Zeitschr.* 1902, n. 5. — Soris 1487
uredosporiferis hypophyllis, sine maculis, minutissimis, sparsis v. irregulariter distributis, dilute brunneis; uredosporis globosis, subglobosis v. ellipsoideis, brunneolis, echinulatis, $20-26 \mu$. diam.

Hab. in foliis *Pæderiæ fœtidæ* in ins. Comorens. (SCHMIDT).

19. **Uredo detergentis** (Thüm.) P. Henn. in *Bot. Ergebn. der Kunene Sambesi Expedit.* p. 160 (1902). — *Coleosporium detergentis* Thüm. — Syll. VII, p. 756. 1488

Hab. in foliis vivis *Plectroniæ huillensis*, Longa pr. Napalanka Africae austr. — Ad *Hemilejam* nec ad *Coleosporium* spectat.

20. *Uredo mkusiensis* P. Henn. in Engl. Bot. Jahrb. 1903, pag. 41. 1489

— Maculis pallidis vel obsoletis; soris hypophyllis sparsis v. gregariis, minutis, flavidulis vel pallidis, dein farinaceis; uredosporis ellipsoideis vel ovoideis sæpe inæquilateralibus, intus flavidis, 15-22 \times 10-16, episporio subhyalino crasso, aculeato verrucoso, unilateraliter levi.

Hab. in foliis Psychotriæ spec., Mkusi, Usambara Africae orient. (ZIMMERMANN). — Ad *Hemilejam* spectat.

21. *Uredo Gardeniæ-Thunbergiæ* P. Henn. in Bot. Ergebn. der Ku- 1490

nene-Sambesi Exped. p. 160 (1902). — Maculis flavescentibus v. fuscidulis, effusis; soris hypophyllis, minutis, dein confluentibus, farinaceis, pallide flavis; uredosporis ovoideis reniformibus v. cordiformibus, lunulatis, 18-28 \times 16-22 flavidis, episporio unilateraliter aculeato-asperatis.

Hab. in foliis Gardeniæ Thunbergiæ prope Kitive Afr. austr. — Ad *Hemilejam* spectat.

22. *Uredo huallagensis* P. Henn. Fungi Amaz. I, pag. 161, Hedw. 1491

1904. — Maculis rotundatis fuscidulis, subbullatis; soris amphigenis, oppositis dense gregarie congestis in pulvinis ca. 5 mm. subferrugineis rotundato-applanatis confluentibus; sporis ovoideis vel ellipsoideis, flavo-brunneis, 20-40 \times 14-28, episporio flavo-brunneo, aculeato asperato; pedicello interdum usque ad 40 \times 3-4, hyalino.

Hab. in foliis Memoræ spec. (Bignoniaceæ,) Tarapoto, Perú. — Forte ad *Uromycetem* spectat; ab *Uredine Memoræ* omnino diversa.

23. *Uredo Nicotianæ* Anastasia, Sacc. et Splend. sp. nov. — Uredo- 1492

soris amphigenis, aureis, subcircularibus, 1-2 mm. diam., erumpentibus et mox nudis, pulvereis, gregariis; uredosporis e globoso ellipsoideis, rarius oblongis, obtusis, 24-32 μ . diam., contextu granuloso amœne aureo; episporio crassiusculo, hyalino verruculoso; pedicellis subnullis.

Hab. in foliis adhuc vivis Nicotianæ quadrivalvis et N. silvestris cultarum in horto experimentalı Institutı tabacologici Scafati pr. Neapolim. — Status teleutosporicus hucusque ignotus. In Nicot. silvestri fungillus est plerumque epiphyllus, in N. quadrivalvi vero est plerumque hypophyllus.

24. *Uredo Hammari* P. Henn. Fungi S. Paulenses I, in Hedw. 1902, 1493

p. 107. — Caulicola tumefaciens vel foliicola, amphigena; soris sparsis v. aggregatis, primo epidermide brunneola, bullata tectis, dein farinaceis, pallidis; sporis ovoideis v. ellipsoideis, olivaceo-fu-

scis, 20-30 \times 17-21, episporio verrucoso, verrucis subbacillaribus, hyalinis ca. 2 μ . longis, 1 μ . crassis vestito.

Hab. in foliis Hyptidis prope S. Paulo Brazilæ.

25. **Uredo Lippiæ** Diet. et Holw. in Bot. Gaz. 1901, p. 335. — Soris 1494
hypophyllis, sparsis, intense brunneis, pulverulentis; uredosporis globosis vel subellipsoideis, 25-32 \times 25-28, episporio intense brunneo, dense echinulato, usque 3 μ . crasso, poris germinationis 2; paraphysibus hyalinis ampulliformibus.

Hab. in foliis Lippiæ Pringlei, Oaxaca in Mexico.

26. **Uredo clerodendricola** P. Henn. F. javanici novi, in Hedw. 1902, 1495
p. 140. — Maculis nullis; soris epiphyllis sparsis, minutis, pulvinatis, epidermide brunnea diutius tectis, 0,2-0,3 mm. diam.; uredosporis ovoideis, ellipsoideis, interdum subglobosis, intus flavis, 30-40 \times 25-35, episporio subhyalino, aculeato; aculeis ca. 2 μ . longis.

Hab. in foliis Clerodendri inermis, Buitenzorg Javæ.

27. **Uredo Scholtzii** P. Henn. Afr. orient. II, in Bot. Jahrb. XXVIII, 1496
p. 34. — Soris minutis, gregarie hypophyllis, flavo-aureis, pallescentibus, farinosis; uredosporis ovoideis vel ellipsoideis, intus aureis dein hyalinescentibus 20-35 \times 16-24, episporio aculeato-asperato, aculeis hyalinis, ca. 2 μ . long.

Hab. in foliis Clerodendri, Usambara Afr. or. (SCHOLZ).

28. **Uredo Viticis-polygamæ** P. Henn. Fungi paraenses II, in Hedw. 1497
1902, pag. 15. — Maculis rotundatis, epiphyllis albidis, oppositis ferrugineis; soris hypophyllis in villo nidulantibus, fuscis; uredosporis subglobosis v. ellipsoideis, 20-30 \times 18-24, episporio brunneo, aculeato-asperato.

Hab. in foliis Viticis polygamæ in horto botanico, Pará Amer. austr.

29. **Uredo Cordiæ** P. Henn. Fungi Amaz. I, p. 163, Hedw. 1904. 1498
— Soris folii- vel ramicolis et hæc organa omnino deformantibus, valde incrassatis confluentibus, ferrugineis pulverulentis; sporis ovoideis, ellipsoideis vel subglobosis, fuscis, 20-30 \times 15-24, episporio ferrugineo verrucoso.

Hab. in caulibus foliisque Cordiæ spec. Tarapoto, Perú Amer. merid. — Ad *Uromyctem Cordiæ* non referenda.

30. **Uredo Peckoltii** Syd. in Ann. Mycol. I, 1903, p. 332. — Soris 1499
uredosporiferis amphigenis, præsertim epiphyllis, maculis vix distinctis insidentibus, minutis, plerumque in greges rotundatos ca. 2-4 mm. diam. concentrice dispositis, epidermide diu tectis, tandem poro minuto apertis, obscure brunneis; uredosporis subglobosis

v. ovatis, aculeatis, brunneolis, 22-32 \times 16-26; paraphysibus copiosis, cylindraceo-clavatis, dilute brunneolis, plus minusve curvatis, usque 70 μ . longis.

Hab. in foliis vivis Peckoltiae pedalis, Goyaz Brasiliae (GARDNER).

31. *Uredo juruensis* P. Henn. Fungi Amaz. I, p. 167, Hedw. 1904. 1500
— Maculis flavido-fusculis effusis; soris hypophyllis effusis, minutis, flavidis, farinaceo-pulverulentis; uredosporis ovoideis, ellipsoideis vel subtriangularibus, intus flavidis, 13-20 \times 10-17, episporio hyalino, verrucoso.

Hab. in foliis Tabernæmontanæ spec. Fortaleza, Rio Juruá. Amer. merid.

32. *Uredo plumericola* P. Henn. Fungi Amaz. I, pag. 161, Hedw. 1904. 1501
— Maculis rotundatis, plus v. minus gregariis; soris hypophyllis, gregariis, interdum confluentibus, rotundato-angulatis, epidermide flavo-brunneola tectis v. circumdati, 0,5-1 mm. diam.; uredosporis oblonge ellipsoideis vel ovoideis, 20-30 \times 16-20, intus fusculis, episporio subhyalino tessellato-verrucoso.

Hab. in foliis Plumeriae spec., Huallaga, Perú Amer. merid.

— Forte ad *Coleosporium Plumeriae* spectat.

33. *Uredo Carpodini* P. Henn. in Bot. Ergbn. du Kunene-Exped. p. 158 (1902). 1502
— Maculis flavis irregularibus; soris hypophyllis sparsis, minutis, rufo-brunneis, diutius tectis; uredosporis ellipsoideis v. ovoideis, fuscis, 18-24 \times 17-22, episporio echinato-asperato, aculeis hyalinis, ca. 3 μ . long.

Hab. in foliis Carpodini leucanthi. Kuito prope Kutue et Sobi Africae austr.

34. *Uredo Clitandræ* P. Henn. in Engl. Bot. Jahrb. 1903, pag. 41. 1503
— Maculis flavidulis subrotundatis; soris hypophyllis sparsis vel subgregariis, subcastaneis, minutis; uredosporis subglobosis, ellipsoideis v. ovoideis, 26-32 \times 22-28, episporio 4-6 μ . incrassato, brunneo vel subhyalino aculeato

Hab. in foliis Clitandræ Watsonianæ, Ost-Usambara Afr. orient. (ZIMMERMANN).

35. *Uredo Symbolanthi* P. Henn. Fungi Amaz. I, p. 161, Hedw. 1904. 1504
— Maculis flavobrunneis, rotundatis vel irregulariter confluentibus; soris sparse gregariis, plerumque epiphyllis vel amphigenis, diutius epidermide alutacea tectis, pulvinatis, 0,3 mm. diam.; uredosporis oblonge ovoideis vel ellipsoideis, flavide brunneolis, acu-

leato-asperatis, 30-45 \times 20-30; paraphysibus obvallatis, subcylindraceis, obtusis, hyalinis vel flavido-brunneis, 30-80 \times 6-10.

Hab. in foliis *Symbolanthi* spec. (Gentianaceæ) Cerro de Escaler, Perú, Amer. merid. — Verisimiliter ad *Uromycetis* speciem spectat.

- 36 **Uredo Opheliæ** Syd. Ann. Mycol. 1903, pag. 21. — Soris uredo-
sporiferis hypophyllis v. cauliculis, in folio sparsis vel subgregariis, hemisphaericis, minutissimis, punctiformibus cinnamomeis; uredosporis subglobosis v. sæpius ovatis v. ellipsoideis, aculeato-verrucosis, flavescentibus, 16-27 \times 14-20.

Hab. in foliis caulibusque *Swertiæ* (*Opheliæ*) angustifoliæ in India orient.

37. **Uredo Copelandi** Syd. Ann. Mycol. 1904, p. 31. — Soris uredo-
sporiferis amphigenis, sparsis v. paucis aggregatis, non confluentibus, hemisphaericis, pseudoperidio inclusis, flavis; uredosporis subglobosis, ellipsoideis v. piriformibus, verrucoso-echinulatis, membrana hyalina, protoplasmate aurantiaco repletis, 18-35 \times 12-20.

Hab. in foliis vivis *Arctostaphyli* patulæ, Sisson Californiae, A. nevadensis, Mt. Eddy, Siskiyou Co. Amer. bor.

38. **Uredo chrysophyllicola** P. Henn. Fungi S. Paulenses I, in Hedw. 1507
1902, p. 106. — Maculis atrorufis, plerumque rotundatis; soris amphigenis sparsis v. aggregatis, primo epidermide flavida tectis, dein erumpentibus, pallidis, applanato-rotundatis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus flavidis, 14-24 \times 12-16, episporio crasso, hyalino, minute aculeato.

Hab. in foliis *Chrysophylli* spec. in horto botanico S. Paulo Brasiliæ.

39. **Uredo Gliæ** Lindroth, Die Umbellif. Ured. 1902, p. 175. — Ure-
dosoris minutis, rotundatis v. ellipsoideis, hypophyllis, in maculis irregularibus, flavidis vel brunneolis, epidermide initio elevata cinctis; uredosporis ellipsoideis, 33-48 \times 18-28, tunica æquali, 2-2,5 μ . cr., flavida vel hyalina, minute sparse aculeolata; poris germinativis vix manifestis.

Hab. in foliis *Annesorrhizæ* (*Gliæ*) gummiFERÆ, Constantieberg Afric. austr. (MAC OWAN).

40. **Uredo Panacis** Syd. Ann. Mycol. 1903, p. 22. — Soris uredo-
sporiferis amphigenis, præsertim hypophyllis, irregulariter sparsis v. aggregatis, rotundatis v. irregularibus, subochraceis; uredosporis globosis, subglobosis v. ellipsoideis, aculeato-verrucosis, subhyalinis, 17-22 μ . diam.

Hab. in foliis vivis *Panacis Pseudo-ginseng*, Sikkim Indiae orient. (I. D. HOOKER fil. et THOMSON).

41. **Uredo Helini** Syd. in *Æsterr. bot. Zeitschr.* 1902, n. 5. — Soris 1510
 uredosporiferis hypophyllis, maculis minutis 1-3 mm. latis, orbicularibus, fuscis insidentibus, solitariis vel paucis in quaque macula aggregatis, minutis, dilute flavo-brunneis; uredosporis globosis, subglobosis v. ellipsoideis, subtilissime echinulatis v. sublevibus, flavescentibus, 16-23 \times 14-19.

Hab. in foliis vivis *Helini lanceolati*, India orient. (HOOKER fil. et THOMSON).

42. **Uredo Zizyphi-vulgaris** P. Henn. *Einige neue japan. Ured.* III, 1511
 in Hedw. 1902, p. 21. — Maculis subpalléscentibus; soris hypophyllis sparsis v. gregariis, interdum nervos sequentibus, minutis, pallide ferrugineis, vix 0,5 mm. diam.; uredosporis ovoideis v. ellipsoideis, hyalino-brunneolis, granulatis, 16-24 \times 12-16.

Hab. in foliis *Zizyphi vulgaris* var. *inermis*, Tosa Japoniæ.

43. **Uredo Allophili** P. Henn. in *Engl. Bot. Jahrb.* 1903, p. 41. — Ma- 1512
 culis fuscidulis, plus v. minus parvis vel indeterminato-explanatis; soris hypophyllis sparsis, minutis, pallidis vel stramineis, pulvinato-applanatis; uredosporis subglobosis, ovoideis vel ellipsoideis, 13-20 \times 12-17, episporio flavido aculeato; paraphysibus clavatis, obtusis hyalinis, 20-30 \times 8-10.

Hab. in foliis *Allophili* sp. (*Sapindaceæ*) Ost-Usambara Africae orient. (ENGLER).

44. **Uredo Maprouneæ** P. Henn. *Fungi Amaz. I*, p. 163, Hedw. 1904. 1513
 — Maculis violaceis, sanguineis vel fuscidulis, retundatis vel irregularibus; soris hypophyllis sparsis vel aggregatis, pulvinatis, epidermide alutacea fissa velatis; sporis variiformibus, oblonge ovoideis, ellipsoideis, clavatis vel subtriangularibus rectis vel curvulis, primo hyalinis dein flavo-brunneis, aculeatis, interdum subpedicellatis, 20-30 \times 15-20, paraphysibus subclavatis, brunneis, ca. 20 \times 10.

Hab. in foliis *Maprouneæ guianensis*, Tarapoto et Yurimaguas, Perù Amer. merid. — Probabiliter ad *Uromycetem* spectat.

45. **Uredo maceiensis** P. Henn. *Fungi Amaz. I*, p. 163, Hedw. 1904. 1514
 — Maculis fuscis, irregulariter effusis; soris sparsis hypophyllis vel cauliculis, plerumque gregariis tuberculatis ferrugineis; uredosporis ovoideis, subglobosis vel ellipsoideis interdum inaequilateralibus, ca. 20-30 \times 15-25, episporio castaneo v. brunneo asperato; paraphysibus sparsis clavatis, brunneis, ca. 30-40 \times 15-18.

Hab. in foliis caulibusque *Johannesiae* principis, Alagoas, Maceio, Amer. merid.

46. *Uredo Hibisci* H. et P. Sydow, in Hedw. 1901, p. (128). — Soris 1515
 uredosporiferis hypophyllis, per totam foliorum superficiem distributis, minutis, rotundatis v. oblongis, diutius tectis, demum epidermide cinctis v. semivelatis, pulverulentis, dilute ochraceis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavis, 16-22 μ . diam. vel 21-27 \times 14-20.

Hab. in foliis vivis *Hibisci syriaci*, St. Martinsville, Louisiana Americae bor. (A. B. LANGLOIS).

47. *Uredo Haplophylli* P. Henn. Fungi Amaz. IV in Hedw. 1904. — 1516
 Maculis rotundatis vel effusis, fuscis; soris hypophyllis sparsis, pulvinatis, primo tectis dein castaneis; sporis subglobosis vel ellipsoideis, fuscis, verrucosis, 18-23 \times 14-17.

Hab. in foliis *Haplophylli* sp., Iquitos, Rio Amazonas Perù.

48. *Uredo Medicaginis* Speg. Myc. argent. ser. II, 1902, p. 66. — Ma- 1517
 culis diffusis, pallescentibus; acervulis sparsis v. gregariis rarius confluentibus, 0,5-1 mm. diam. applanatis, epidermide disrupta cinctis; soris sæpius hypophyllis, erumpentibus, ferrugineis; uredosporis aparaphysatis, 18-20 μ . diam. globosis, grosse 1-guttulatis, laxe papilloso-aculeolatis, fulvis.

Hab. ad folia viva *Medicaginis denticulatæ*, in pratis prope La Plata Argentinae.

49. *Uredo mararyensis* P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1518
 — Maculis rotundatis concavis; soris hypophyllis in pustulis, pulvinatis, ferrugineis tuberculatis, 2-3 mm. diam. aggregatis v. sparsis pulverulentis; sporis ovoideis vel ellipsoideis, fusco-cinnamomeis, asperatis, 15-20 \times 12-15.

Hab. in foliis *Dalbergiæ* spec., Marary, Rio Juruá Amer. merid. — Ab *U. Dalbergiæ* soris rubiginosis firmulis sporisque aculeolatis obscurioribus distinguenda.

50. *Uredo nidulans* Syd. in Ann. Mycol. I, 1903, p. 332. — Soris 1519
 uredosporiferis hypophyllis, maculis flavescentibus indeterminatis insidentibus, perexiguis, in greges usque 4 mm. latos laxè dispositis vel subinde subsparsis, pulverulentis, ochraceis v. fulvo-ochraceis; uredosporis subglobosis v. piriformibus, breviter echinulatis, flavescentibus, 16-25 \times 14-19; paraphysibus copiosis, fasciculatim soros uredosporiferos circumdantibus, plus minusve curvulis, cylindraceis, sursum non incrassatis sed leniter attenuatis, flavo-brunneis, usque 100 μ . longis, 5-8 μ . latis.

Hab. in foliis *Dalbergiæ foliolosæ*, Guanai-Tismani Boli-viæ (MIQUEL BANG).

51. **Uredo Sojæ** P. Henn. in Hedw. 1903, p. (108). — Maculis fuscis, 1520
minutis; soris hypophyllis, raro epiphyllis, sparsis, interdum ag-
gregatis rotundato-pulvinatis, ferrugineis, epidermide fuscidula
diutius tectis; uredosporis subglobosis, ovoideis v. ellipsoideis, 18-
25 \times 15-18, episporio brunneo, verrucoso; paraphysibus sparsis
clavatis, interdum curvulis, 20-30 \times 10-15 hyalinis.

Hab. in foliis *Glycinis Sojæ*, Shimoda, Tosa Japoniæ
(YOSHINAGA).

52. **Uredo margine-incrassata** P. Henn. Fungi paraenses II, in Hedw. 1521
1902, p. 15. — Maculis gregariis vel sparsis, rotundatis, fuscis,
incrassato-obscuriorique cingulatis, 2-3 cm. diam.; soris amphige-
nis, minutis; sporis subglobosis, ellipsoideis v. ovoideis, angulatis,
castaneis, 30-40 \times 25-35, episporio aculeato-asperato, aculeis hya-
linis, ca. 2 μ . longis.

Hab. in foliis *Lonchocarp*i spec. Pará, Amer. austr.

53. **Uredo Desmodii-pulchelli** Syd. in Österr. bot. Zeitschr. 1902, n. 5. 1522
— Soris uredosporiferis hypophyllis, in hypophyllo maculas minu-
tas 1-2 mm. diam. orbiculares fuscas generantibus, in epiphyllis
sine maculis, sparsis, plerumque solitariis in quaque macula, minu-
tissimis, perexiguis, flavo-brunneis, pulverulentis; uredosporis eli-
psoideis, ovatis v. subglobosis, subtiliter verruculosis, flavidis, 18-
25 \times 14-19.

Hab. in foliis vivis *Desmodii pulchelli*, Hongkong Sina-
rum (Dr. NAUMANN).

54. **Uredo Desmodii-leiocarpi** P. Henn. Fungi S. Paulenses I, in 1523
Hedw. 1902, p. 107. — Maculis rufis, minutis; soris sparsis am-
phigenis, minutis, pallide flavidis; uredosporis subglobosis v. ovoi-
deis, flavidis, 16-21 \times 15-19, episporio echinulato.

Hab. in foliis *Desmodii leiocarpi*, in horto botanico, S.
Paulo Brasiliæ.

55. **Uredo tephrosiicola** P. Henn. Fungi Amaz. I, pag. 163, Hedw. 1524
1904. — Maculis brunneolis, effusis; soris amphigenis sparsis,
oblonge vel rotundato-pulvinatis, epidermide fissa subferruginea
velatis; sporis ovoideis, ellipsoideis vel subglobosis, brunneis, mi-
nute verrucosis, 18-28 \times 15-24.

Hab. in foliis *Tephrosiæ* spec., Pompas prope Tarapoto in
Perù, Amer. merid. — Verisimiliter ad *Uromycetis* speciem refe-
renda; ab *U. Tephrosiæ* diversa.

56. **Uredo bomfimensis** P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1525
— Maculis flavidis rotundatis vel effusis; soris hypophyllis gregarie sparsis, depresso-pulvinatis, epidermide alutacea fissa cingulatis vel tectis; sporis ovoideis vel ellipsoideis, interdum subtriquetris, flavobrunneis, verrucosis, $13-20 \times 10-14$.

Hab. in foliis *Pithecolobii* spec., Bom Fim, Rio Jurua, Amer. merid. — Ad *Uromycetis* speciem probabiliter referenda; ab *U. Pithecolobii* omnino diversa.

57. **Uredo Bauhiniae** P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1526
— Maculis fuscidulis rotundatis; soris amphigenis, sparsis v. aggregato-confluentibus, applanato-pulvinatis, pallide flavis; sporis ellipsoideis ovoideis, hyalino-flavidulis vel brunneis, aculeatis, $15-22 \times 10-15$; paraphysibus subclavatis, hyalino-fuscidulis, ca. $10-15 \times 4-5$.

Hab. in foliis *Bauhiniae* spec. Jurua-Miry, Rio Jurua et Yurimaguas in Peru, Amer. merid. — Ab *Ured. bauhinicola* distincta.

58. **Uredo amazonensis** P. Henn. Fungi Amaz. IV in Hedw. 1904, 1527 p. 58. — Maculis rotundatis vel effusis, flavidis; soris hypophyllis, sparsis vel gregariis, pulvinatis, flavidis; sporis ellipsoideis, subglobois vel ovoideis, flavido-hyalinis, $20-35 \times 18-20$, aculeato-echinatis.

Hab. in foliis *Bauhiniae* spec., Rio Jurua Brasiliae.

59. **Uredo excipulata** Syd. in Ann. Mycol. 1904, p. 350. — Pycnidiiis 1528 amphigenis, minutis, numerosis in greges rotundatos 1-3 mm. d. dense dispositis; soris uredosporiferis circulo non interrupto circ. 1 mm. lato pycnidia cingentibus, epidermide rufo-brunneo-tincta primo tectis, dein eam disrumpentibus et ab ea ad marginem conspicue cinctis vel partim velatis, subceraceis, ferrugineo-brunneis; uredosporis ovato-piriformibus, apice subinde incrassatis, aculeato-verruculosis, ex hyalino flavo-brunneolis, $20-27 \times 11-17$.

Hab. in foliis vivis Ingæ Inicuil, Mexico (PRINGLE ex F. NEGER).

60. **Uredo crotalariaicola** P. Henn. in Bot. Ergebn. der Kunene-Sam- 1529 besis Expedit. pag. 158 (1902). — Maculis fuscidulis; soris hypophyllis, circulariter dispositis, minutis, ferrugineis; uredosporis subglobois, ovoideis v. late ellipsoideis, brunneis, $22-30 \times 20-29$, episporio fusco v. castaneo, $5-7 \mu$. cr., minute verrucoso.

Hab. in foliis *Crotalariae lachnocladæ* in Africa. — Probabiliter ad *Uromycetem* spectat.

61. *Uredo Theresiæ* Neger in Beihefte Bot. Centralbl. XIII, an. 1902, 1530
p. 78, fig. *a-b*. — Soris hypophyllis minutissimis vix conspicuis, maculis indeterminatis, flavescentibus insidentibus, paucis in acervulum irregularem congestis, hemisphæricis, 0,5 mm. diam., epidermide diu tectis; uredosporis ovoideis obovatis v. globosis 18-22 \times 16-20, episporio tenui, breviter echinulato, achroo præditis; poris germinativis numerosis (5-7) sed vix conspicuis instructis, paraphysibus mixtis.

Hab. in foliis *Crotalariae anagyroidis* inter Il Moral et Machin in Columbia Americæ austr. — Ab *U. Crotalariae* magnitudine et colore sporarum nec non numero pororum recedens.

62. *Uredo Cassiæ-glaucæ* Syd. in Ann. Mycol. 1903, I, p. 331. — 1531
Soris uredosporiferis amphigenis, sparsis v. subinde paucis, 2-3-associatis, sæpe ad nervos evolutis, minutis, subpulverulentis, ochraceo-brunneis; paraphysibus nullis; uredosporis subglobosis, ellipsoideis v. oblongis, breviter echinulatis, flavis, 12-18 \times 10-14.

Hab. in foliis vivis *Cassiæ glaucæ*, Hohefeldthafen Novæ Guineæ (O. WARBURG).

63. *Uredo Socotræ* Syd. in Ann. Mycol. I, 1903, p. 332. — Soris 1532
uredosporiferis amphigenis, sine maculis, plerumque in greges irregulares dispositis irregulariterque confluentibus, epidermide fissa cinctis vel semitectis, ochraceis; paraphysibus non visis; uredosporis subglobosis, ellipsoideis v. oblongis, aculeato-verruculosis, flavescentibus, 12-19 \times 10-14.

Hab. in foliis vivis *Cassiæ Sophoræ*, Kischen, in insula Socotra (G. SCHWEINFURTH).

64. *Uredo Cassiæ-stipularis* Syd. in Ann. Mycol. I, 1903, p. 331. — 1533
Soris uredosporiferis amphigenis, maculis minutis fuscis, ca. 2-3 mm. diam. insidentibus, sparsis, solitariis vel in greges minutos concentrice dispositis, minutis, epidermide fissa cinctis, ochraceis v. ochraceo-fuscis; paraphysibus non visis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 22-27 μ . d. vel 22-30 \times 16-25, episporio ca. 2,5-3 μ . crasso.

Hab. in foliis vivis *Cassiæ stipularis*, Quillota in Chile (BERTERO).

65. *Uredo ngamboensis* P. Henn. in Engl. Bot. 1903, p. 42. — Ma 1534
culis fuscidulis vel obsoletis; soris hypophyllis interdum epiphyllis, sparsis vel aggregatis, ferrugineis, epidermide rupta, pallida cinctis; uredosporis subglobosis vel ellipsoideis, interdum inæquilateralibus, 16-22 \times 12-20, episporio brunneo, aculeato-verrucoso.

Hab. in foliis Albizziae Lebbek, Ngambo, Ost-Usambara Africae orient. (ZIMMERMANN).

66. **Uredo Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 1535
1902, p. 106. — Maculis fuscis; soris ramicolis v. phyllodiocolis amphigenis gregariis, angulari-pulvinatis, diutius epidermide pallida tectis, dein subpulverulentis; uredosporis ellipsoideis v. ovoideis, intus flavido-aurantiis, 12-18 \times 10-13, episporio hyalino, granulato-verrucoso.

Hab. in foliis et petiolis Acaciae sp., in horto bot. S. Paulo Brasiliae.

67. **Uredo ochraceo-flava** P. Henn. Fungi costaricensis, I, in Hedw. 1536
1902, p. 101. — Soris epiphyllis in maculis rotundatis dispositis, aggregatis, pulvinato-hemisphaericis, minutis, epidermide ochracea tectis, dein pulverulentis, flavis; sporis ovoideis vel ellipsoideis, clavatis, flavidis, 22-35 \times 20-28, episporio verrucoso, verrucis conoideis vel hemisphaericis, 2,5-4 \times 2-3 hyalinis.

Hab. in foliis Rubi pr. Santa Maria De Dota, Amer. centr.

68. **Uredo imperialis** Speg. — Syll. XVI, p. 354. — f. **ramulicola** 1537
Speg. in An. Soc. Cient. Argent. 1899, p. 276.

Hab. ad ramos Rubi imperialis, in silvis, prope Tucuman Amer. occid. (F. SIVORI). — Forma insignis, tumores lignosos majusculos v. maximos (nucis v. pugni magnitudine) efficiens; uredosporae crustaceae, superficiem matricis obtegentes, aurantiacae ut in typo.

69. **Uredo Pruni** Cast. — Syll. VII, p. 858 et Speg. in Ann. Soc. Cient. Arg. 1899, p. 268. — Cfr. Mac Alp. in Ann. mycol. 1904, p. 344.

Hab. ad folia languida Persicae vulgaris prope Cordoba Argentinae (T. STRUCKERT). — Status teleutosporicus adhuc ignotus est. In speciminibus cordubensibus adsunt sporae dimorphae; spore alterae (teleutosporae v. mesosporae?) obovatae, in parte antica v. supera crasse acuteque umbonatae leves obscureque fuliginiae, caeterum laxae majusculaeque papilloae, pallidiores 1-guttulatae 30-40 \times 16-20, pedicello hyalino brevi 10-20 \times 5-7, mox fluxili fultae; alterae, uredosporae verae! globosae 18-20 μ . diam., dense grosseque papilloae, tenuiter tunicatae, uniguttulatae, pallidae fulvae.

70. **Uredo Pruni-Maximowiczii** P. Henn. Engl. Jahrb. 1902, XXXII, 1538
pag. 37. — Soris in ramulis junioribus petiolisque, incrassatis et curvatis, epidermide fusca tectis; sporis subglobosis ovoideis vel ellipsoideis, angulatis, pallide flavis, levibus, 9-15 \times 7-12.

Hab. in ramis junioribus Pruni Maximowiczii, Nikko Japoniae (M. SHIBATA).

71. *Uredo Goeldiana* P. Henn. in Hedw. 1903, pag. (188). — Soris 1539
gregariis, plane pulvinatis, cinereo-flavis, dein aurantio-farinosi;
uredosporis ellipsoideis v. ovoideis, intus aurantio-guttulatis, 15-
25 × 13-18, episporio hyalino verrucoso.

Hab. in fructibus Eugeniae spec. Cambucò, Pará Brasiliae (GÖLDI).

72. *Uredo kampuluensis* P. Henn. in Bot. Ergebn. der Kunene-Sambesi 1540
Exped. p. 159 (1902). — Maculis ferrugineis minutis;
soris hypophyllis gregariis, confluentibus, minutis, ferrugineis, pul-
verulentis; paraphysibus oblonge clavatis, curvulis, hyalino-fusci-
dulis, 20-40 × 6-10 circumdatis; uredosporis ovoideis, ellipsoideis v.
reniformibus, unilateraliter curvulis, aurantiacis, ochraceis, aculea-
to-asperatis, 18-23 × 15-21.

Hab. in foliis Combreti Baumii et Baphiae cornifoliae, Kampuluve Africae austr. — Licet in matricibus tam diversis, species omnino eadem est.

73. *Uredo longaensis* P. Henn. in Bot. Ergebn. der Kunene-Sambesi 1541
Exped. p. 159 (1902). — Maculis flavis v. fuscis effusis; soris
hypophyllis, epidermide bullata, brunnea diutius tectis, dein erumpentibus;
uredosporis subglobosis, ovoideis vel ellipsoideis, saepe
angulatis, fusciculis 18-23 × 15-21, episporio sublevi, fusciculo.

Hab. in foliis Combreti Baumii, Longa Africae austr.

74. *Uredo Dissotidis-longicaudae* P. Henn. in Bot. Ergebn. der Kunene-Sambesi 1542
Exped. p. 159 (1902). — Soris epiphyllis, striiformibus, pustulatis,
epidermide fissa brunneola velatis; uredosporis subglobosis v. ellipsoideis,
angulatis, hyalino-subfusciculis vel brunneolis, 16-22 × 15-20, punctulatis.

Hab. in foliis Dissotidis longicaudae, Kampuluve Africae austr.

75. *Uredo Cedrelae* P. Henn. F. javanici novi in Hedw. 1902, p. 140. 1543
— Maculis rotundatis, fuscis, dein exaridis; soris hypophyllis sub-
orbiculariter dispositis v. nervos sequentibus, pulvinatis, epider-
mide fusca tectis dein nudis; uredosporis subglobosis, ovoideis v.
ellipsoideis, hyalino-fusciculis v. brunneis, 14-18 × 12-15, episporio
aculeato-asperato.

Hab. in foliis Cedrelae spec. in Java orient.

76. *Uredo floridana* H. et P. Sydow, in Hedw. 1901, pag. (129). — 1544
Soribus uredosporiferis hypophyllis, maculis indeterminatis flavidis

insidentibus, sparsis vel confluentibus, flavo-aurantiacis, pulverulentis; uredosporis ellipsoideis vel ovoideis, verrucosis, flavidis, 20-30 \times 14-20, episporio hyalino-flavido, 1,5-2 μ . crasso.

Hab. in foliis *Mentzeliae floridanae* in Florida Americae bor. (S. M. TRACY).

77. *Uredo Lindsæe* P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904. 1545

— *Melampsorella*; maculis atro-fuscis vel ferrugineis, rotundatis vel confluentibus subinflatiss; soris hypophyllis sparse gregariis punctiformibus, flavidis vel atrobrunneis, paraphysibus obvallatis, fasciculato-connexis, clavatis, curvulis vel hamatis, brunneis, ca. 30-40 \times 10-16, circumdatis; sporis ovoideis, ellipsoideis vel subglobosis, primo hyalinis dein castaneis, verrucosis, 18-30 \times 15-23.

Hab. in foliis *Lindsæe Ulei*, Rio Jurua, Jurua-Miry, Amer. merid. — Verisimiliter matrix est *Litsæa* nec *Lindsæa*.

78. *Uredo paranensis* Penningt. Anal. Soc. Cientif. Argent. 1902, 1546

LIII, p. 269 (extr. p. 9). — Maculis pallescentibus, circularibus; soris erumpentibus, fulvo-aurantiis, hypophyllis nec confluentibus; uredosporis globosis, fulvo-aurantiis intus granulosus, crasse tunicatis, 30-33 μ . diam., episporio leviter echinulato.

Hab. in foliis *Mogiphanis glaucæ* in silvis prope Paraná Mini et Paraná Guazu Brasiliæ. — An status uredosporicus *Uromyctes platensis*?

79. *Uredo Thesii-decurrentis* P. Henn. in Hedw. 1901 p. (125). — 1547

Soris amphigenis v. cauliculis, oblongis v. rotundatis, subceraceis, pallide ferrugineis; uredosporis subglobosis pallide brunneis, punctato-granulatis, 16-18 μ .

Hab. in foliis caulibusque *Thesii decurrentis* prope Sakawa in prov. Tosa Japoniæ (T. YOSHINAGA).

80. *Uredo Kriegeriana* Syd. in Ester. bot. Zeitschr. 1902, n. 5. — 1548

Soris uredosporiferis hypophyllis, maculis flavescentibus indeterminatis insidentibus, sparsis v. laxè gregatim dispositis, minutissimis, perexiguis, flavidis, pulverulentis; uredosporis subglobosis v. ellipsoideis, tenuiter echinulatis, aurantiacis, 21-27 \times 15-22, poris germinationis pluribus præditis.

Hab. in foliis vivis *Cannabidis sativæ*, in horto prope Schandau Saxonie (W. KRIEGER).

81. *Uredo moricola* P. Henn. F. javanici novi, in Hedw. 1902, p. 140. 1549

— Maculis fuscidulis, indeterminatis; soris hypophyllis sparse gregariis, paginam totam interdum omnino occupantibus, sæpe confluentibus, ferrugineis, primo tectis, dein nudis; uredosporis ovoi-

deis, ellipsoideis v. subglobosis, hyalino-fusculis, 16-23 \times 13-20, episporio aculeato-asperato.

Hab. in foliis Mori indicæ, Java orient.

82. **Uredo consanguinea** Syd. in Æsterr. bot. Zeitschr. 1902, n. 5. — 1550

Soris uredosporiferis hypophyllis, in epiphylo maculas fuscas rotundatas brunneo-limitatas, 2-4 mm. latas generantibus, in greges rotundatos v. irregulares dispositis vel hinc inde sine ordine distributis, minutis, convexis, compactiusculis, sanguineis; uredosporis globosis, subglobosis, v. late ellipsoideis, aculeatis, ex flavido demum rufo-brunneis, 22-30 μ . diam.

Hab. in foliis vivis Dorsteniæ multiformis, Rio de Janeiro Brasilæ (RUDIO).

83. **Uredo Trabutii** Pat. in Bull. Soc. Myc. France 1901, p. 187. — 1551

Maculis amphigenis, sparsis, orbicularibus, 2-4 mm. latis, brunneis; soris hypophyllis, minutis, 130-150 μ . diam., solitariis vel 2-5 ad centrum macularum dispositis, diu tectis, dein erumpentibus, obscure fuscis; uredosporis globosis vel obovatis, 20-23 \times 16-18, episporio tenui, hyalino, minutissime asperulo, contentu achroo.

Hab. in foliis Fici levigatæ prope Alger Africae sept.

84. **Uredo nootkatensis** Trelease, Harrim. Alaska Exped. Crypt. p. 36. 1552

— Soris subhemisphaericis, circ. 0,5 mm. diam., saturate auran-
tiis; sporis globosis v. breviter ovoideis, membrana tenui, hyalina,
radiatim striata et leviter asperula, 28-31 μ . diam.; pedicellis hya-
linis, gracilibus, paullo infra sporam secedentibus.

Hab. in foliis Chamæcyparis nootkatensis, Hot Spring,
Baranof Island Alaska (TRELEASE).

85. **Uredo aurantiaca** Montem. Una nuova uredinea parassita delle 1553

Orchidee in Atti R. Ist. Bot. di Pavia vol. VIII, 1902, tab. IV,
fig. 1-7. — Maculis nullis; soris epi- vel hypophyllis, in stromate
myceliari insitis sparsis, hinc inde 3-6-aggregatis, primo epider-
mide et pseudoperidio tenui tectis, demum erumpentibus et epi-
dermide rupta cinctis, pulverulentis, interdum setulis sterilibus
præditis, aurantiacis; uredosporis polymorphis, rotundatis v. ova-
tis vel oblongis et irregulariter angulatis, dilute flavis, 20-25 \times
16-20 episporio crassiusculo et minute verruculoso vel levi in-
structis, pedicello hyalino 15-20 μ . long. fultis.

Hab. in foliis Oncidii Cavendishiani, in calidariis horti
botanici Pavia, Italia bor.

86. **Uredo Oncidii** P. Henn. Fungi paraenses II, in Hedw. 1902, 1554

p. 15. — Maculis epiphyllis v. amphigenis, rotundato-angulatis, sæpe confluentibus, incrassatis, atro-fuscis; soris gregariis v. sparsis, pustulatis, diutius epidermide pallida, fissa tectis, fuscidulis; uredosporis oblonge ovoideis v. ellipsoideis, utrinque obtusis, 20-30 \times 13-18, episporio fusco, granulato vel subaculeato-verrucoso.

Hab. in foliis *Oncidii Lanceani*, Pará, Amer. austr.

87. **Uredo Wittmackiana** P. Henn. et Klitzing, Ein neuer schädli. 1555

Rostpilz aus Mexico, 1904. — Maculis rotundatis flavidis v. fuscidulis; soris epiphyllis pulvinatis, subconcentrice dispositis, ca. 0,5-1 mm. diam., primo epidermide flavida basi obscuriore zonata tectis, dein sublongitudinaliter erumpentibus, aurantio-flavis; uredosporis ovoideis, ellipsoideis v. oblongis, vertice rotundatis, basi interdum apiculatis, intus oleoso-aurantiaco-guttulatis 30-40 vel 20-25 μ . diam., episporio usque ad 5 μ . cr., echinato-aculeato, hyalino.

Hab. ad folia viva *Epidendri* sp. Orizaba Mexico (prof. L. WITTMACK). — Ab *Uredine Epidendri* differt maculis flavo-fuscis, nec sanguineo-marginatis, soris brunneis etc.

88. **Uredo Floscopæ** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1904. 1556

— Maculis ferrugineis, rotundatis; soris amphigenis, sparsis vel aggregatis, cinnamomeis; sporis ovoideis, ellipsoideis vel subglobosis, fusco-brunneis, 16-26 \times 13-20, episporio cinnamomeo, aculeato.

Hab. in foliis *Floscopæ peruvianæ*, Rio Juruá, Cachoeira et Yurimaguas Perú, Amer. merid.

89. **Uredo Ophiopogonis** Syd. in Ann. Mycol. 1903, I, pag. 332. 1557

Soris uredosporiferis hypophyllis, sparsis, minutissimis, vix 300-350 μ . diam., epidermide diutius tectis, dilute cinnamomeo-brunneis; uredosporis globosis, subglobosis v. rarius ellipsoideis, breviter aculeatis, flavidis, 22-28 \times 16-25, episporio crassiusculo, usque 3 μ .

Hab. in foliis *Ophiopogonis Jaburan*, Linkiu ins. (O. WARBURG).

90. **Uredo Ischnosiphonis** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1558

1904. — Maculis gregariis, minutis, rotundatis fuscis; soris hypophyllis sparse gregariis, pulvinatis, minutis, flavidis dein fuscidulis; sporis ellipsoideis vel ovoideis, 18-26 \times 17-20, hyalino-flavidulis, echinato-aculeatis,

Hab. in foliis *Ischnosiphonis leucophæi* (Marantaceæ), Rio Juruá, Miry, Amer. merid. — A *Darlucæ* sæpe infecta et obscurata.

91. *Uredo Eucharidis* P. Henn. Fungi Amaz. I, p. 164, Hedw. 1904. 1559
 — Maculis gregariis, rotundatis, minutis, fuscis; soris hypophyllis gregarie sparsis, pulvinato-discoideis, roseis, 0,5-1 mm. diam.; sporis subglobosis, ovoideis vel ellipsoideis, intus roseis vel hyalinis, 15-20 \times 13-17, episporio hyalino asperato.

Hab. in foliis Eucharidis spec. Cerro de Ponasa in Perù, Amer. merid.

92. *Uredo yurimaguasensis* P. Henn. Fungi Amaz. I, p. 164, Hedw. 1904. 1560
 — Maculis rotundatis, fuscis exaridis; soris hypophyllis cinnamomeis concentrice dispositis, epidermide fissa velatis; sporis ovoideis vel ellipsoideis interdum subglobosis, brunneo-fuscis, echinatis, 20-34 \times 18-24.

Hab. in foliis Smilacis, Yurimaguas, Perù, Amer. merid.

93. *Uredo Dioscoreæ-quinquelobæ* P. Henn. in Hedw. 1903, p. (108). 1561
 — Maculis fusciculis; uredosporis epiphyllis, gregariis, sæpe nervos sequentibus confluentibusque, interdum hypophyllis sparsis, ochraceo-ferrugineis, pulvinatis; uredosporis subglobosis vel ellipsoideis, 13-20 \times 13-17, episporio brunneo, minute verrucoso.

Hab. in foliis Dioscoreæ quinquelobæ, Konai-Zaka, Tosa Japoniæ (YOSHINAGA).

94. *Uredo Sparganophori* P. Henn. Fungi Amaz. I, p. 160, Hedw. 1904. 1562
 — Maculis rotundatis, dein effusis flavo-fusciculis; soris amphigenis gregariis, pulvinatis cæspitosis, fusciculis, diutius tectis, dein epidermide fissa velatis; uredosporis subglobosis, ovoideis vel ellipsoideis, 20-30 \times 18-25, episporio flavo-fusciculo asperato.

Hab. in foliis Sparganophori Vaillantii, St. Clara, Rio Juruá, Amer. merid.

95. *Uredo juncina* (Thüm.) P. Dumée et R. Maire, in Bull. Soc. bot. de France 1901, tom. 48, p. 221, *Uromyces juncinus* Thüm. — Sacc. Syll. VII, pag. 569. 1563
 — Soris subepidermicis, gregariis, ellipticis vel linearibus, postremo epidermidem longitudinaliter dirumpentibus inter costarum sclerenchymatis funiculos, sed non vere liberis, umbrino-ferrugineis; uredosporis globosis, ovoideis vel interdum clavatis, plerumque utrinque rotundatis v. truncatis, umbrinis, episporio subtenui, duobus poris germinationis æquatorialibus prædito, aculeolis hyalinis parce nec non ovidenter ornato, 23-35 \times 13-22; pedicello deciduo hyalino, arcuato, sursum sæpe dilatato longitudine sporam æquante vel superante.

Hab. in culmis vivis Junci (acutiflori?) Licata Siciliæ

(V. BELTRANI) nec non in foliis culmisque vivis Junci maritimi, in paludosis maritimis, prope Golfe de Figari Corsicae (R. MAIRE).

96. *Uredo Fuirenæ* Rostr. in Bot. Tidsskrift Copenhagen 1902, vol. 24, 1564 p. 205. — Soris hypophyllis, fuscidulis, lanceolatis, usque 1 mm. longis; uredosporis variis, subsphaeroideis, obovatis vel oblongo-polyhedricis, subtiliter aculeatis, $20-30 \times 14-20$.

Hab. in foliis *Fuirenæ* glomeratae, Siam Asiae merid.

97. *Uredo breviculmis* P. Henn. in Hedw. 1901, p. (125). — Soris 1565 hypophyllis sparsis v. gregariis, epidermide tectis, minutis, rotundatis v. oblongis, pallide brunneis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus oleoso-aureis, $22-32 \times 20-25$, episporio crasso, aculeato, hyalino.

Hab. in foliis *Caricis breviculmis* var. *leucochloræ* prope Sakawa in prov. Tosa Japoniae.

98. *Uredo Torulini* P. Henn. Fungi Amaz. IV in Hedw. 1904, 1566 p. 57. — Maculis effusis, fuscidulis; soris hypophyllis, sparsis vel gregariis oblongis vel striiformibus, saepe confluentibus, primo epidermide pallida tectis, dein ferrugineis; sporis subglobosis, ellipsoideis vel ovoideis, fusco-brunneis, verrucosis, $16-22 \times 11-18$.

Hab. in foliis *Torulini* (Cyper) conferti, Bom Fim, Rio Jurua Brasiliae.

99. *Uredo paspalicola* P. Henn. Fungi Amaz. IV in Hedw. 1904, 1567 p. 57. — Maculis oblongis, fuscidulis; soris hypophyllis, sparsis vel gregariis oblongis vel striiformibus, saepe confluentibus, epidermide flavida tectis; uredosporis ovoideis, clavatis vel ellipsoideis, hyalino brunneolis, aculeato-echinatis $18-28 \times 13-18$.

Hab. in foliis *Paspali conjugati* Yurimaguas, Rio Hualaga Brasiliae.

100. *Uredo hyalina* Diet. in Bot. Jahrb. 1903, p. 632. — Soris 1568 minutis hypophyllis, in maculis atropurpureis vel brunneis, diu tectis, paraphysibus clavatis arcuatis, circumdatis; uredosporis subglobosis vel obovatis $33-38 \times 30-33$, episporio $5-7 \mu$. crasso, hyalino v. dilute flavescenti, echinulato indutis.

Hab. in foliis *Caricis stenanthæ*, in prov. Iwaki Japoniae (KUSANO).

101. *Uredo superior* Arthur Bull. Torr. Bot. Cl. 1904, p. 5. — Soris 1569 uredosporiferis amphigenis, elongatis, tectis, dein epidermidem lacrantibus; uredosporis globosis $28-34$ vel $32-34$, episporio $3-4 \mu$. cr., pallide brunneo, dense echinulato, poris germinationis 2.

Hab. in foliis *Fimbristylis spadiceæ*, Ponce, Porto Rico, Amer. (A. A. HELLER).

102. **Uredo Acriuli** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis sparsis, minutis, rotundatis v. oblongis, epidermide diu tectis, flavo-brunneis; uredosporis subglobosis, ellipsoideis, ovatis v. piri-
formibus, grosse verrucoso-aculeatis, flavo-brunneolis, 26-40 × 21-28.

Hab. in foliis *Acriuli madagascariensis*, Andrangoloaka, in insula Madagascar (I. M. HILDEBRAND).

103. **Uredo Courtoisii** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis hypophyllis, maculis minutis 1-2 mm. longis, brunneolis insidentibus, sparsis, minutis, oblongis, pallide brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavescentibus, 19-24 μ . diam. vel 22-27 × 14-20.

Hab. in foliis *Courtoisii eyperoidis*, Khasia Indiae orient. (HOOKER fil. et THOMSON).

104. **Uredo Anthephoræ** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis amphigenis, præsertim hypophyllis, sparsis, linearibus v. oblongis, diu epidermide tectis, pulverulentis, flavo-ferrugineis; uredosporis globosis v. subglobosis, verruculosis, brunneolis 22-30 μ . diam. episporio ca. 4-5,5 μ . cr.; paraphysibus nullis.

Hab. in foliis *Anthephoræ elegantis*, in insula Cuba (RAMOND DE LA SAGRA).

105. **Uredo Olyræ** P. Henn. Fungi Amaz. I, pag. 164, Hedw. 1904. — Maculis ferrugineis, rotundatis vel effusis; soris amphigenis sparsis vel subgregariis, cinnamomeis, epidermide rupta cinetis; sporis ellipsoideis, ovoideis, brunneo-fuscis, verrucosis, 20-30 × 16-24.

Hab. in foliis *Olyræ spec.*, Iquitos, Rio Amazonas, Perù, Amer. merid. — A *Darlucce* et *Fusarii* speciebus sæpe infecta.

106. **Uredo Panici** Arthur in Bull. of the Torr. Bot. Club. 1902, p. 231. — Fere semper hypophylla; soris oblongis, brunneo-luteolis, cito, epidermide lacerata, erumpentibus; sporis ovalibus vel globosis, 24-28 × 26-37, membrana exili, aurantiaco-luteis, dense echinulatis, poris germin. 4 sparsis.

Hab. in foliis *Panici amari*, Longboat Key, Fla. et Hog Island Fla. Amer. bor.

107. **Uredo Henningsii** Sacc. et D. Sacc. *Uredo Panici* P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904, nec Arthur (1902). — Maculis effusis fuscidulis vel obsolete; soris amphigenis gregariis, oblongis interdum striiformibus, cinnamomeis, pulverulentis, epidermide alu-

tacea velatis; sporis subglobosis, ovoideis v. ellipsoideis, læte brunneis, 20-32 \times 18-28, minute verrucosis.

Hab. in foliis Panici spec., Rio Juruá, Juruá Miry, Amer. merid. — Ad *Puccinia* speciem verisimiliter spectat.

108. *Uredo auletica* Speg. Myc. argent. ser. II, 1902, p. 65. — Maculis 1576 nullis; soris numerosissimis sæpe confluentibus ac vaginas totas obtegentibus, epidermide persistenti sed relaxata velatis, linearibus, ferrugineis; uredosporis majusculis 24-30 \times 12-15, sessilibus, episporio tenui subimperspicue papilloso hyalino, eudoplasmate pallide fulvo, obovatis, superne rotundatis deorsum cuneatis basique sæpius truncatis.

Hab. ad vaginas Bromi aulectici, Rufino, in Argentina.

109. *Uredo Danthoniæ* Henn. in Hedw. 1902, p. (211). — Soris am- 1577 phigenis, gregariis, striiformibus, ferrugineis; uredosporis subglobosis vel late ellipsoideis, læte brunneis, 17-22 \times 14-20, episporio castaneo, minute verrucoso.

Hab. in foliis Danthoniæ Forskalii pr. Planteos House in Stat. Quattah Egypti.

110. *Uredo paulensis* Henn. in Hedw. 1902, p. 297. — Maculis fu- 1578 scidulis striiformibus; soris amphigenis linearibus, epidermide rupta velatis, ferrugineis; uredosporis ovoideis v. subglobosis, fuscis, 20-28 \times 18-22, episporio granulato-verrucoso, fusco; paraphysibus oblonge clavatis, apice incrassatis, rotundatis, 30-50 \times 10-20, flavo-brunneis.

Hab. in foliis Calamagrostidis spec., in horto botanico S. Paulo Brasiliæ.

111. *Uredo Rottboelliæ* Diet. in Bot. Jahrb. 1902, pag. 52. — Soris 1579 amphigenis, minutis, ochraceis; uredosporis ellipsoideis vel subglobosis, 30-37 \times 25-28, castaneis, echinulatis, poris germ. 4 instructis.

Hab. in foliis Rottboelliæ compressæ var. japonicæ, in horto botanico Tokyo Japoniæ. (KUSANO). — Cfr. *Uromyces Rottboellii*.

112. *Uredo Setariæ-italicæ* Diet. in Bot. Jahrb. 1903, p. 632. — Soris 1580 amphigenis, minutis, oblongis, cinnamomeis; uredosporis obvatis 27-35 \times 20-27, episporio tenui flavo-brunneo echinulato, poris germ. 3 perforato indutis.

Hab. in foliis Setariæ italicæ var. germanicæ et Setariæ viridis in horto botanico Tokyo Japoniæ (KUSANO).

113. *Uredo Sorghi-halepensis* Patouill. in Bull. Soc. Myc. de France 1581 1903, fasc. 3, p. 253. — Maculis amphigenis, sparsis vel confluen-

tibus, elongatis, brunneis aut rufulis; soris hypophyllis, linearibus, tectis dein erumpentibus, 250-500 μ . long.; uredosporis subglobosis, ovoideis vel attenuatis, ochraceo-brunneis, 30-35 \times 22-25, asperulis, breviter stipitatis; paraphysibus elongatis, 50-60 μ ., apice incrassatis, crasse tunicatis, rufescentibus.

Hab. in pag. inf. fol. Sorghi halepensis, Alger Algeriae.

— Ab *Uredine Sorghi* Fuck. differt praesertim paraphysibus.

114. **Uredo Pasadenæ** Syd. Ann. Mycol. 1904, p. 31. — Soris ure- 1582
dosporiferis epiphyllis, maculis nullis vel indeterminatis pallidis et obsoletis insidentibus, sparsis vel hinc inde irregulariter aggregatis, minutis, punctiformibus, diu clausis, tandem poro minuto medio apertis, flavo-aurantiacis; uredosporis globosis, subglobosis, ovatis vel piriformibus, subtiliter echinulatis, subhyalinis, 13-18 μ . diam. vel 13-24 \times 11-16.

Hab. in frondibus vivis Gymnogrammes triangularis, Pasadena Californiae (A. J. Mc CLATCHIE).

115. **Uredo blechnicola** P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904. 1583
— Soris minutis, pulvinatis hypophyllis sparsis nervos sequentibus, flavidis vel fuscidulis, pulverulentis; uredosporis globosis vel lunulatis, flavidulis fuscescentibus vel violascentibus, 20-25 \times 18-25, verrucosis.

Hab. in foliis Blechni volubilis, Rio Juruá, Juruá, -Miry, Amer. merid. — Ab *Ured. Blechni* omnino diversa.

116. **Uredo balaensis** Syd. Ann. Mycol. 1903, p. 21. — Soris uredo- 1584
sporiferis amphigenis, plerumque hypophyllis, maculis minutis vix distinctis insidentibus, irregulariter sparsis, minutissimis, epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ovatis, aculeatis, brunneis, 22-27 μ . diam. vel 24-30 \times 18-24.

Hab. in foliis vivis Blechi Brownei, Balao in prov. Guayas Aequatoriae (G. LAGERHEIM).

CÆOMA Link — Syll. VII p. 863, XI p. 227, XIV p. 407, XVI p. 365.

1. **Cæoma exitiosum** Syd. Ann. Mycol. 1903, pag. 252. — Soris per 1585
ramulos juniores late expansis, confluentibus et ramulos plerumque valde deformantibus, sæpe etiam folia juniora apicalia obtinentibus, aurantiacis, pulverulentis; cæomosporis subglobosis, ellipsoideis v. oblongis, punctatis, aurantiacis, 16-30 \times 12-20; paraphysibus clavatis, hyalinis, apice usque 20 μ . latis.

Hab. in ramulis Rosæ pimpinellifoliæ, in Istria.

2. **Cæoma pulcherrimum** Bubák, Berichte Deut. Bot. Gesell. 1903, 1593 p. 273, *C. Mercurialis* Auctor. p. p. — Soris rotundatis, oblongis, confluentibus, caulem per 2-10 cm. ambientibus, pulvereis, aurantiis; cæomosporis vulgo globosis vel ellipsoideis, rarius oblongis (immaturis polygoniis) 15-28 \times 15-22, membrana tenui, flavida, crebre minuteque verruculosi (sporarum immaturarum 2-2,5 μ . crassa, hyalina), contentu aurantiaco.

Hab. ad caules (qui deformantur et tumescunt) *Mercurialis annuæ*, in Italia merid., Sicilia, Lusitania, Montenegro. — Pycnidia (*Æcidium pulcherrimum*) inter soros sparsa, globulosa, 140-200 μ . diam. mellea, dein brunneola; sporulis globoso-ellipsoideis, 4-5 \times 2,5-3.

3. **Cæoma Makinoi** Kusano in Bot. Mag. Tokio 1903, p. 15-22 (japonice et absque diagnosi).

Hab. in foliis *Pruni Mume*, cui valde nocet, in Japonia. — Status spermogonicus in gemmis calycibusque *Pruni primitus* evolvitur. Cæomosporæ æcæne flavo-aurantiacæ.

Conspectus alphabeticus

Uredinacearum heterocarum earumque matricum.

Cl. mi et percomis Doct. H. KLEBAHN permissu, Conspectum hunc ab ejus opere vere eximio *Die wirtswechselnden Rostpilze*, Berlin 1904, ad studiosorum utilitatem excerpimus, additis paucis speciebus nuperius illustratis. Ut notissimum est, signum I indicat statum æcidialem, II statum uredosporicum, III statum teleutosporicum. Matrices, quoad contagionis effectus, non plene confirmatæ, inter parentheses inscriptæ sunt.

CHRYSOMYXA Unger.

Ledi (Alb. et Schwein.) de Bary: I *Abies excelsa* Lk.; II III *Ledum palustre* L.

Pirolæ (DC.) Rostr.: I [*Abies excelsa* Poir. (*Æcidium conorum-Piceæ* Reess)?]; II III *Pirola rotundifolia* L. etc.

Rhododendri (DC.) de Bary: I *Abies excelsa* Lk.; II III *Rhododendron ferrugineum* L., *hirsutum* L.

Woronini Tranzschel: I [*Picea excelsa* Lk. (*Æcidium coruscans* Fr.)?]; II III *Ledum palustre* L.

Calyptospora v. *Pucciniastrum*.

COLEOSPORIUM Lév.

Cacaliæ (DC.) Wagner: I *Pinus montana* Mill. [*P. silvestris* L.?]; II III *Adenostyles alpina* Bluff. et Fing. (*viridis* Cass.)

Campanulæ-macranthæ Wagner (?): I *Pinus silvestris* L.; II III *Campanula macrantha* Fisch.

Campanulæ-rapunculoidis Kleb.: I [*Pinus silvestris* L.?, *montana* Mill.?]; II III *Campanula rapunculoides* L. [*C. glomerata* L., *glomerata dahurica* hort., *Phyteuma orbiculare* L.].

Campanulæ-rotundifoliæ Kleb.: I [*Pinus silvestris* L.?]; II III *Campanula rotundifolia* L., *pusilla* Haenke, *turbinata* Shott, *Phyteuma spicatum* L., [*Wahlenbergia hederacea* Reichenb., *Phyteuma orbiculare* L. *Campanula bononiensis* L., *glomerata dahurica* hort.].

Campanulæ-Trachelii Kleb.: I *Pinus silvestris* L.; II III *Campanula Trachelium* L., *latifolia* L. var. *macrantha* Fisch., «*nobilis*», [*bononiensis* L., *glomerata* L., *glomerata dahurica* hort., (*rapunculoides* L.?). *Wahlenbergia hederacea* Reichenb.?].

COLEOSPORIUM Lév.

Euphrasiæ (Schum.) Wint: I *Pinus silvestris* L., *montana* Mill.; II III *Alectorolophus major* Reichenb., *minor* Wimm et Grab., *Euphrasia officinalis* L.

Inulæ (Lze.) Fisch.: I *Pinus silvestris* L.: II III *Inula Vaillantii* Vill., *Helenium* L., *salicina* L.

Melampyri (Rehent.) Kleb.: I *Pinus silvestris* L., *montana* Mill.; II III *Melampyrum pratense* L.

Petasitis de Bary: I *Pinus silvestris* L.; II III *Petasites officinalis* Moench.

Phyteumatis Wagner (?): I *Pinus silvestris* L.; II III *Phyteuma spicatum* L.

Pulsatillæ (Strauss) Lév.: I *Pinus silvestris* L.; II III *Pulsatilla vulgaris* Mill., *pratensis* Mill.

Senecionis (Pers.) Fr.: I *Pinus silvestris* L., *austriaca* Höss; II III *Senecio vulgaris* L., *silvaticus* L., *viscosus* L., *vernalis* Waldst. et Kit., [*Jacobaea* Huds.?].

[I *Pinus montana* Mill.?]; II III *Senecio Doronicum* L.

Sonchi (Pers.) Lév.: I *Pinus silvestris* L.; II III *Sonchus asper* All., *arvensis* L., *oleraceus* L.

subalpinum Wagner: I *Pinus montana* Mill.; II III *Senecio subalpinus* Koch.

Tussilaginis (Pers.) Kleb.: I *Pinus silvestris* L.; II III *Tussilago Farfara* L.

CRONARTIUM Fr.

asclepiadeum (Willd.) Fr.: I *Pinus silvestris* L.; II III *Vincetoxicum officinale* Moench, *Pæonia tenuifolia* L., *officinalis* L., *peregrina* Mill., *Nemesia versicolor* E. Mey., *Verbena teucrioides* Gill. et Hook.

flaccidum v. *asclepiadeum*.

gentianeum Thüm.: I [Pinus?]; II III *Gentiana asclepiadea* L.

Nemesia v. *asclepiadeum*.

Quercuum (Cooke) Myabe: I *Pinus densiflora* Sieb. et Zucc., *Thunbergi* Parl., *parviflora* Sieb. et Zucc., *liuckuensis* Mayr.; II III *Quercus serratus* Thunb., *variabilis* Blume, *glandulifera* Blume.

ribicola Dietr.: I *Pinus Strobus* L., *Lambertiana* Dougl., *embræ* L.; II III *Ribes nigrum* L., *aureum* Pursh, *alpinum* L., *americanum* Mill., *aureum* Pursh, *Cynosbati* L., *divaricatum* Dougl., *oxyacanthoides* L., *rotundifolium* Michx., *rubrum* L., *sanguineum* Pursh, *setosum* Lindl., [*Grossularia* L.]

Verbena v. *asclepiadeum*

GYMNOSPORANGIUM Hedw.

biseptatum Ellis: I *Amelanchier canadensis* Medic., [*Crataegus tomentosa* L.?]; III *Cupressus thuyoides* L. (= *Chamaecyparis sphaeroidea* Spach).

clavariiforme (Jacq.) Reess: I *Crataegus Oxyacantha* L., *monogyna* Jacq., *nigra* Waldst. et Kit., *tomentosa* L., *Douglasii* Lindl., *Pirus communis* L., *Amelanchier vulgaris* Moench, [*Cydonia vulgaris* Pers.,

Cratægus grandiflora C. Koch, *sanguinea* Pall., *tanacetifolia* Pers., *Sorbus latifolia* Pers., *terminalis* Crantz?, (*aucuparia* L.?) — *Amelanchier canadensis* Medic.; III *Juniperus communis* L., *communis* var. *hibernica* Gordon, *Oxycedrus* L.

GYMNOSPORAGIUM Hedw.

clavipes Cooke et Pek: I *Amelanchier canadensis* Medic. [*Pirus Malus* L.?, *arbutifolia* L.?]; III *Juniperus virginiana* L., (*communis* L.?).

confusum Plowr.: I *Cratægus Oxyacantha* L., *Mespilus germanica* L., *Cydonia vulgaris* Pers., [*Pirus communis* L.]; III *Juniperus Sabina* L.; *virginiana* L.

Cunninghamianum Barcl.: I *Pirus Pashia* Ham.; III *Cupressus torulosa* Don. *Elisii* Berk.: I [*Pirus Malus* L.?, *Pirus arbutifolia* L.?]; III *Cupressus thuyoides* L. (= *Chamæcyparis sphæroidea* Spach).

globosum Farlow: I *Pirus Malus* L., *Sorbus americana* Marsh., *Cratægus coccinea* L., *Crus-galli* L., [*tomentosa* L.?, *Douglasii* Lindl.?, *Oxyacantha* L.?]; III *Juniperus virginiana* L.

japonicum Sydow: I *Pirus «sinensis»*; III *Juniperus sinensis* L.

juniperinum (L) Fr.: I *Sorbus aucuparia* L., *Amelanchier vulgaris* Mönch; III *Juniperus communis* L.

macropus Lk.: I *Pirus Malus* L., *coronaria* L., [*Pirus arbutifolia* L.?, *Amelanchier canadensis* Medic.?, *Cratægus tomentosa* L.?, *Douglasii* Lindl.?]; III *Juniperus virginiana* L.

Nelsoni Arthur: I [*Amelanchier alnifolia* Nutt.]; III *Juniperus scopulorum* Sargent.

nidus-avis Thaxter: I *Amelanchier canadensis* Medic., [*Cydonia vulgaris* Pers.? *Pirus Malus* L.]; III *Juniperus virginiana* L.

Sabinæ (Dieks.) Wint.: I *Pirus communis* L.; III *Juniperus Sabina* L., [*virginiana* L.].

tremelloides R. Hartig: I *Pirus Malus* L., *Sorbus Aria* Crantz, [*Chamæmespilus* Crantz?]; III *Juniperus communis* L.

MELAMPSORA Cast.

Abietis-Caprarum Tub.: I *Abies pectinata* Lam. et DC. (*alba* Mill.); II III *Salix Caprea* M.

acidivides (DC.) Schroet. v. *Rostrupii*.

Allii-Fragilis Kleb.: I *Allium ascalonicum* L., *Cepa* L., *sativum* L., *Schænoprasum* L., *vineale* L., *ursinum* L., [*Porrum* L.], II III *Salix fragilis* L., *pentandra* L., *fragilis* × *pentandra*.

Allii-populina Kleb.: I *Allium ascalonicum* L., *Cepa* L., *Schænoprasum* L., *sativum* L., *ursinum* L., *vineale* L.; II III *Populus nigra* L., *balsamifera* L., *canadensis* Mönch.

Allii-Salicis albæ Kleb.: I *Allium Cepa* L., *Schænoprasum* L., *ursinum* L., *vineale* L., [*Porrum* L.]; II III *Salix alba* L.

alpina Juel: I *Saxifraga oppositifolia* L.; II III *Salix herbacea* L.

MELAMPSORA Cast.

[Amygdalinæ Kleb.]: I II III *Salix amygdalina* L., [*S. pentandra* L.]
 Evonymi-Capræarum Kleb.: I *Evonymus europæa* L.: II III *Salix cinerea*
 L., *aurita* L., *Capræa* L., [*cinerea* × *viminialis*].

Evonymi-Incanæ Schneid. 1904., I *Evonymus europæa* II III *Salix incana*.
 Galanthi-Fragilis Kleb.: I *Galanthus nivalis* L.: II III *Salix fragilis* L.,
pentandra L., *fragilis* × *pentandra*.

Klebahni Bub.: I *Corydalis cava* Schw., *solida* Sm.; II III *Populus tremula*
 L. (v. *M. Magnusiana*!).

Laricis-Capræarum Kleb.: I *Larix decidua* Mill., *occidentalis* Nutt.; II III
Salix Capræa L., [*aurita* L.].

Laricis-Daphnoidis Kleb.: I *Larix decidua* Mill.; II III *Salix acutifolia*
 Willd., *daphnoides* Vill., [*aurita* L., *cinerea* L., *viminialis* L. ?].

Laricis-epitea Kleb.: I *Larix decidua* Mill.; II III *Salix aurita* L., *cinerea*
 L., *viminialis* L., × *hippophaëfolia* Thuill., *Capræa* L. [*acutifolia*
 Willd., *daphnoides* Vill., *fragilis* L. ?, *purpurea* L. ?, *aurita* × *viminialis*,
Capræa × *viminialis*, *purpurea* × *viminialis*, × *Smithiana*
 Willd., × *dasyclados* Wimm.].

Laricis-Nigricantis Schneid. 1904., I *Larix decidua*. II II *Salix nigricans*.

Laricis-Purpureæ Schneid. 1904., I *Larix decidua*. II III *Salix purpurea*.

Laricis-Pentandræ Kleb.: I *Larix decidua* Mill., *sibirica* Ledeb.; II III
Salix pentandra L., *fragilis* × *pentandra*, [*fragilis* L.].

Laricis-populina Kleb.: I *Larix decidua* Mill.; II III *Populus nigra* L.,
balsamifera L., *canadensis* Moench, [*italica* Ludw.].

Laricis Hartig v. *Laricis-Tremulæ*.

Laricis-Tremulæ Kleb.: I *Larix decidua* Mill.; II III *Populus tremula* L.,
alba L., *alba* × *tremula*, [*balsamifera* L.].

Magnusiana Wagner: I *Chelidonium majus* L., *Corydalis solida*; II III
Populus tremula L., *alba* L., *alba* × *tremula*, [*nigra* L. ?].

Orchidis-Repentis (Plowr.): I *Orchis maculata* L., *latifolia* L., II III *Salix*
repens L., [*aurita* L.].

pinitorqua Rostr.: I *Pinus silvestris* L., *montana* Mill.; II III *Populus*
tremula L., *alba* L., *alba* × *tremula* (*canescens* Sm.).

Ribesii-Auritæ Kleb.: I *Ribes alpinum* L., *Grossularia* L., *nigrum* L.: II
 III *Salix aurita* L., *cinerea* L., [*Capræa* L.].

Ribesii-Purpureæ Kleb.: I *Ribes alpinum* L., *Grossularia* L., *aureum* Pursh
 [*sanguineum* Pursh]; II III *Salix purpurea* L., *purpurea* × *viminialis*
 (= *rubra* Huds.).

Ribesii-Viminalis Kleb.: I *Ribes Grossularia* L., *rubrum* L., *alpinum* L.,
 [*aureum* Pursh, *nigrum* L., *sanguineum* Pursh]; II III *Salix vimi-*
nalis L.

Rostrupii Wagner: I *Mercurialis perennis* L.; II III *Populus tremula* L.,
alba L., [*nigra* L., *balsamifera* L., *canadensis* Moench, *italica* Ludw.].

MELAMPSORELLA Schroet.

Caryophyllacearum (DC.) Schroet.: I *Abies pectinata* Lam. et DC. = *alba* Mill. (*Æcidium elatinum* Alb. et Schw.); II III *Stellaria media* Cyr., *nemorum* L., *Holostea* L., *graminea* L., *uliginosa* Murr., *Arenaria serpyllifolia* L., *Cerastium triviale* Lk., *semidecandrum* L., *Mohringia trinervia* Clairv., [*Malachium aquaticum* Fr. ?].

Symphyti (DC.) Bub.: I *Abies pectinata* Lam. et DC. *alba* Mill.; II III *Symphytum officinale* L.

MELAMPSORIDIUM Kleb.

betulinum (Pers.) Kleb.: I *Larix decidua* Mill.; II III *Betula verrucosa* Ehrh., *pubescens* Ehrh., *nana* L.

OCHROPSORA Diet.

Sorbi (Oud.) Diet.: [I *Anemone nemorosa* L. ?]; II III *Sorbus aucuparia* L., *terminalis* Crantz.

[*Peridermium Pini* (Willd.) Kleb.]: I *Pinus silvestris* L. [II III ?].

PUCCINIA Pers.

Actææ-Agropyri E. Fischer: I *Actæa spicata* L.; II III *Agropyrum caninum* Röm. et Schult.

Acidii-Leucanthemi E. Fischer: I *Chrysanthemum Leucanthemum* L.; II III *Carex montana* L.

ad Æcidium-Trientalis Franzosel.: I *Trientalis europæa* L.; II III *Carex limosa* L.

[agropyriac Erikss.]: [I ?]; II III *Agropyrum repens* Beauv. [*Secale cereale* L. ?, *Bromus arvensis* L. ?].

Agropyri Ell. et Ev. v. Clematidis-Agropyri.

Agrostis Plow.: I *Aquilegia vulgaris* L., *alpina* L.; II III *Agrostis alba* L., *vulgaris* Vill.

albiperidita Arth.: I *Ribes Cynosbati* L.; II III *Carex pubescens* Mühl.

Allii-Phalaridis: I *Allium ursinum* L.; II III *Phalaris arundinacea* L.

americana Lagerh.: I *Pentstemon pubescens* Sol. (*P. hirsutus* Willd.); II III *Andropogon scoparius* Michx.

amphigena Dietel: I *Smilax herbacea* L., *hispida* Mühl.; II III *Calamovilfa longifolia* Hack.

Andropogonis Schw. v. *americana*.

Angelicæ-Bistortæ (Strauss) Kleb.: I *Angelica silvestris* L., *Carum Carvi* L.; II III *Polygonum Bistorta* L., [*P. viviparum* L.].

(Angelicæ-) mamillata Semadeni: [I *Angelica silvestris* L. (*Æcid. Iudækianum* Juel) ?]; II III *Polygonum Bistorta* L.

angustata Peck: I *Lycopus americanus* Mühl.; II III *Scirpus atrovirens*, Mühl.

arenariicola Plowr.: I *Centaurea nigra* L.; II III *Carex arenaria* L.

argentata (Schultz) Wint.: I *Adoxa Moschatellina* L.; II III *Impatiens nolitangere* L.

PUCCINIA Pers.

- Ari-Phalaridis (Plowr.): I *Arum maculatum* L.; II III *Phalaris arundinacea* L.
- Arrhenatheri (Kleb.) Erikss.: I *Berberis vulgaris* L.; II III *Arrhenatherum elatius* Mert. et Koch.
- Asteris-Caricis Arthur: I *Aster paniculatus* Lam., *cordifolius* L.; II III *Carex fænea* Willd.
- Atkinsoniana Diet. v. *Bolleyana*.
- australis Körn: I *Sedum reflexum* L., *acre* L., *boloniense* Lois.; II III *Diplachne serotina* Lk.
- Bartholomaei v. *Bartolomewii*.
- Bartolomewii Dietel: I *Asclepias incarnata* L., *syriaca* L.; II III *Bouteloua curtipendula* Torr. (*Atheropogon curtipendulus* Fourn.).
- Bistortæ (Strauss) v. *Angelica-Bistortæ* et *Conopodii-Bistortæ*.
- Bolleyana Sacc.: I *Sambucus canadensis* L.; II III *Carex trichocarpa* Mühl., *hurida* Wahl.
- borealis Juel: I *Thalictrum alpinum* L.; II III *Agrostis borealis* Hartm.
- bromina Erikss. v. *Symphyti-Bromorum*.
- Brunellarum-Molinia Cruchet 1904: I *Brunella vulgaris* (Ricd. *Brunella* Wint.); III *Molinia cerulea*.
- Calamagrostis Sydow: I *Ranunculus Lingua* L.; II III *Calamagrostis neglecta* Fr.
- Cari-Bistortæ Kleb. v. *Angelica-Bistortæ*.
- Caricis (Schum.) Rebent.: I *Urtica dioica* L., *urens* L., *gracilis* Ait.; II III *Carex acuta* L., *stricta* Good., *Goodenoughii* Gay, *Carex hirta* L., *riparia* Curt., *acutiformis* Ehrh., *ferruginea* Scop., [*Pseudocyperus* L., *pendula* Huds.].
- Caricis-Asteris, Caricis-Erigerontis, Caricis-Solidaginis vide: *Asteris-Caricis*, *Erigerontis-Caricis*, *Solidaginis-Caricis*.
- Caricis var. himalensis Barcl.: I *Urtica parviflora* Roxb.; II III *Carex setigera* Don.
- Caricis-frigidæ E. Fischer: I *Cirsium heterophyllum* All., *spinosissimum* Scop., *Eriophorum* Scop., *rivulare* Lk?; II III *Carex frigida* All.
- Caricis-montanæ E. Fischer: I *Centaurea Scabiosa* L., *Cent. montana* L., [*C. Iacea* L., *nigra* L., *amara* L., *axillaris* Willd., *melitensis* L., *nigrescens* Willd.]; II III *Carex montana* L., [*alba* Scop., *leporina* L.?].
- (Clematidis-) Agropyri Ell. et Everh.: I *Clematis Vitalba* L.; II III *Agropyrum glaucum* Roem. et Schult.
- Conopodii-Bistortæ Kleb.: I *Conopodium denudatum* Koch; II III *Polygonum Bistorta* L.
- Convallariz-Digraphidis (Sopp.) Kleb.: I *Convallaria majalis* L.; II III *Phalaris arundinacea* L.
- coronata Corda: I *Frangula Alnus* Mill.; II III *Calamagrostis lanceolata*

PUCCINIA Pers.

Roth, *arundinacea* Roth, *Phalaris arundinacea* L., *Holcus mollis* L., *lanatus* L., *Agrostis vulgaris* With., *stolonifera* L., *Agropyrum repens* Beauv., *Dactylis glomerata* L., *Festuca silvatica* Vill.

[*coronata* f. *Epigæi* Erikss.]: [I?]; II III *Calamagrostis Epigeios* Roth
[*coronata* f. *Melice* Erikss.]: [I?]; II III *Melica nutans* L.

coronata var. *himalensis* Borelay: I *Rhamnus dahurica* Pall.; II III *Brachypodium silvaticum* Beauv., *Piptatherum holciforme* Boem. et Schult., *Festuca gigantea* Vill.

coronifera Kleb.: I *Rhamnus cathartica* L., [*oleoides* L., *tinctoria* W. K. ?], *utilis* Deene. (*dahurica* Pall.)?, *infectoria* L., *lanceolata* Pursh?]; II III *Avena sativa* L., *Lolium perenne* L., *Festuca elatior* L., *Holcus mollis* L., *lanatus* L., *Alopecurus pratensis* L., *nigricans* Horn.?, *Glyceria aquatica* Wahlenb.?, *Arrhenatherum elatius* M. et K. (stirpes).

Digraphidis v. *Convallariæ-Digraphidis*.

Dioicæ Magnus: I *Cirsium oleraceum* Scop., *palustre* Scop., *heterophyllum* All., *spinosissimum* Scop.,? *rivulare* Lk.; II III *Carex dioica* L., *Davalliana* Sm. [*alba* Scop.].

dispersa Erikss.: I *Anchusa arvensis* Marsch. v. Bieb., *officinalis* L. [*Nonnea rosea* F. M. ?]; II III *Secale cereale* L., *montanum* Guss.

Elymi v. *Thalictri-Elymi* et *Impatientis-Elymi*.

Elymi-Impatientis v. *Impatientis-Elymi*.

Erigerontis-Caricis Arthur: I *Erigeron annuus* Pers., *philadelphicus* L., *canadensis* L. (*Leptilon canadense* Britt.); II III *Carex festucacea* Wille.

Eriophori Thüm.: [I *Cineraria palustris* L. ?]; II III *Eriophorum angustifolium* Roth.

extensicola Plowr.: I *Aster Tripolium* L.; II III *Carex extensa* Good.

Festucæ Plowr.: I *Lonicera Periclymenum* L.; II III *Festuca ovina* L., *duriuscula* L. — I *Lonicera nigra* L.; II III *Festuca rubra* L. var. *fallax* Hack.

firma Dietel: I *Bellidiastrum Michellii* Cass; II III *Carex firma* Host. *fraxinata* Lk. v. *peridermiospora*.

[*glumarum* (Schmidt) Erikss. et Henn.]: [I?]; II III *Triticum vulgare* Vill., *Hordeum vulgare*, *Secale cereale* L., *Elymus arenarius* L., *Agropyrum repens* Beauv.

graminis Pers. I *Berberis* et *Mahonia* spp. *Æcidium Berberidis* Gm. II III *Triticum*, *Secale*, *Avena*, *Agrostis*, *Aira*, *Poa* etc.

holcina Erikss.: [I?]; II II *Holcus lanatus* L., *mollis* L.

Jamesiana v. Pucc. *Bartholomewii*.

Jasmini-Chrysopogonis Borel.: *Jasminum humile* L.; II III *Chrysopogon Gryllus* L.

PUCCINIA Pers.

Impatiens-*Elymi* Arth.: I *Impatiens aurea* Mühl.; II III *Elymus virginicus* L.

Ligericæ Sydow: I *Senecio silvaticus* L.; II III *Carex ligerica* Gay.

Limosæ Magnus: I *Lysimachia vulgaris* L. *thyrsiflora*; II III *Carex limosa* L.

linearis Roberge v. *Alti-Phalaridis*.

Lolii Nielsen v. *coronifera*.

longissima Schroet.: I *Sedum acre* L., *bolonienses* Lois.; II III *Koeleria gracilis* Pers.

Magnusiæ Körn.: I *Ranunculus repens* L. *bulbosus* L.; II III *Phragmites communis* Trin.

Magnusii Kleb.: I *Ribes nigrum* L., *alpinum* L., *aureum* Pursh, *sanguineum* Pursh; II III *Carex riparia* Cart., *acutiformis* Ehrh.

mamillata v. *Angelicæ-mamillata* u. *Mei-mamillata*.

Maydis Béreng. I *Oxalis cymosa* (*Æcidium Oxalidis* Thüm.?), II III *Zea Mays* L. (Arthur 1904).

Mei-mamillata Semadeni: I *Meum Mutellina* Gært. (*Ligusticum Mutellina* Crantz); II III *Polygonum Bistorta* L.

Molinie Tul.: I *Orchis latifolia* L., *mascula* L.; II III *Molinia cærulea* Moench.

nemoralis Juel: I *Melampyrum pratense* L.; II III *Molinia cærulea* Moench.

obscura Schroet.: I *Bellis perennis* L.; II III *Luzula campestris* DC.

obtusata Otth: I *Ligustrum vulgare* L.; II III *Phragmites communis* Trin.

Opizii Bubák: I *Lactuca muralis* Less., *Scariola* L.; II III *Carex muralis* L.

Orchidearum-Phalaridis Kleb.: I *Orchis maculata* L., *latifolia* L., *Morio* L., *Platanthera bifolia* Reichenb., *chlorantha* Cust., *Listera ovata* R. Br.; II III *Phalaris arundinacea* L.

paludosa Plowr.: I *Pedicularis palustris* L.; II III *Carex Goodenoughii* Gay.

Paridis-Digraphidis (Plowr.): I *Paris quadrifolia* L.; II III *Phalaris arundinacea* L.

Pekii (de Toni) Kellerm.: I *Enothera biennis* L.; II III *Carex trichocarpa* Mühl., *stipata* Mühl.

peridermiospora (Ellis et Tracy) Arth.: I *Fraxinus viridis* Michx. (*lan- ceolata* Borekh.); II III *Spartina cynosuroides* Willd.

perplexans Plowr.: I *Ranunculus acer* L.; II III *Alopecurus pratensis*

persistens Plowr.: I *Thalictrum flavum* L., II III *Agropyrum repens* Beauv. — I *Thalictrum aquilegifolium* L. *minus* L., *foetidum* L.; II III *Poa nemoralis* L. var. *firma* Gaud.

Phalaridis v. *Ari-Phalaridis*.

[*Phlei-pratensis* Erikss. et Henn.]: [1?]; II III *Phleum pratense* L., *Fe-*

stuka elutior L., [*Phleum Michelii* All., *Avena sativa* L., *Secale cereale* L.].

PUCCINIA Pers.

Phragmitis (Schum.) Körn.: I *Rumex conglomeratus* Murr., *obtusifolius* L., *crispus* L., *hybridus* Murr., *Hydrolapathum* Huds., *Rheum officinale* Baill.; II III *Phragmites communis* Trin.

Poa Nielsen: I *Tussilago Farfara* L.; II III *Poa annua* L., *fertilis* Host., *nemoralis* L., *pratensis* L., *trivialis* L., [*Secale cereale* L.?].

Polliniæ Barel.: I *Strobilanthes Dalhousianus* Clarke; II III *Pollinia nuda* Trin.

Polygoni-amphibii Pers.: I *Geranium silvaticum* L., [*Geranium palustre* L.?, *pratense* L.?]; II III *Polygonum amphibium* L.

Polygoni-vivipari Karsten: I *Angelica silvestris*; II III *Polygonum viviparum* L., [*Bistorta* L.].

Pringsheimiana Kleb.: I *Ribes Grossularia* L., *alpinum* L., *aureum* Pursh, [*rubrum* L., *sanguineum* Pursh, (*nigrum* L.)]; II III *Carex acuta* L., *stricta* Good., *Goodenoughii* Gay, *cæspitosa* L.

Ribesii-Caricis v. P. *Pringsheimiana*, *Ribis-nigri-Acutæ*, *Ribesii-Pseudocyperi*, *Magnusii*, *Ribis-nigri-Paniculatæ*.

Ribesii-Pseudocyperi Kleb.: I *Ribes nigrum* L., *Grossularia* L., *alpinum* L., *aureum* Pursh, *sanguineum* Pursh; II III *Carex Pseudocyperus* L.

Ribis-nigri-Acutæ Kleb.: I *Ribes nigrum* L., *alpinum* L., [*aureum* Pursh, *sanguineum* Pursh, (*Grossularia* L.)]; II III *Carex acuta* L., *stricta* Good.

Ribis-nigri-Paniculatæ Kleb.: I *Ribes nigrum* L., *alpinum* L., (*aureum* Pursh, *sanguineum* Pursh, *rubrum* L., (*Grossularia* L.)]; II III *Carex paniculata* L., *paradoxa* Willd.

rupestris Juel I: *Saussurea alpina* DC.; II III *Carex rupestris* L.

(*Salviæ*-) *Stipæ*: *Salvia silvestris* L., *pratensis* L., [*Thymus Serpyllum* L.?], II III *Stipa capillata* L.,

Sambuci (Schw.) Arth. v. *Bolleyana*.

Schmidtiana Dietel: I *Leucofum vernum* L., *æstivum* L.; II III *Phalaris arundinacea* L.

Schoeleriana Plowr. et Magn.: I *Senecio Jacobæa* L.; II III *Carex arenaria* L.

Schroeteriana Kleb. v. *Serratulæ-Caricis*.

Scirpi DC.: I *Limnanthemum nymphæoides* Lk.; II III *Scirpus lacuster* L. *septentrionalis* Juel: I *Thalictrum alpinum* L.; II III *Polygonum viviparum* L. *Bistorta* L.

Serratulæ-Caricis Kleb.: I *Serratula tinctoria* L.; II III *Carex flava* L.

Sesleriæ Reichardt: I *Rhamnus saxatilis* Jacq.; II III *Sesleria cærulea* Ard.

sessilis Schneid. v. *Allii-Phalaridis*.

PUCCINIA Pers.

silvatica Schrost.: I *Taraxacum officinale* Web., *Senecio Fuchsii* Gmel., *nemorensis* L., *Lappa officinalis* All., *Crepis biennis* L.; II III *Carex brizoides* L., *præcox* Schreb. (Schreberi Schrank.), *arenaria* L., *silvatica* Huds? *pallescens* L.

simillima Arthur: I *Anemone canadensis* L.; II III *Phragmites communis* Trin.

[*simplex* (Körn.) Erikss. et Henn.]: [I?]; II III *Hordeum vulgare* L., *distichum* L., *hexastichum* L., *Zoocriton* L. n. a.

Similacearum-Digraphidis Kleb.: I *Polygonatum multiflorum* All., *officinale* All., *verticillatum* All., *Convallaria majalis* L., *Majanthemum bifolium* Schmidt, *Paris quadrifolia* L.: II III *Phalaris arundinacea* L.

Solidaginis-Caricis Arth.: I *Solidago canadensis* L., *serotina* Ait., [*cæsia* L., *ulmifolia* Mühl., *rigida* L.]; *Carex Jamesii* Schw., *stipata* Mühl. *Stipæ* (Opiz) Hora v. (*Tymi*-) *Stipæ* et (*Salvia*-) *Stipæ*.

Symphyti-Bromorum F. Müller: I *Symphytum officinale* L., *Pulmonaria montana* Lej., [*Anchusa officinalis* L.?, *Nonnea rosea* F. M.?]; II III *Bromus arvensis* L., *brachystachys* Horn., *erectus* Huds., *inermis* Leyss., *mollis* L., *secalinus* L., [*Arrhenatherum elatius* Mert. et Koch?]. *Sydowiana* Dietel v. *Vilfæ*.

subnitens Dietel: I *Chenopodium album* L.; II III *Distichlis spicata* Greene. *tenuistipes* Rostr.: I *Centaurea Iacea* L.; II III *Carex muricata* L.

(*Thalictri*-)*Elymi* Westend.: I *Thalictrum minus* L.; II III *Elymus arenarius* L.

(*Thymi*-)*Stipæ* (Opiz): I *Thymus pannonicus* Willd., *ovatus* Mill., *præcox* Opiz., *angustifolius* Pers.; II III *Stipa capillata* L.

Trailii Plowr.: I *Rumex Acetosa* L.; II III *Phragmites communis* Trin. *triarticulata* Berk et Curt. v. (*Thalictri*-)*Elymi*.

[*Triseti* Erikss.]: [I?]; II III *Trisetum flavescens* Beauv.

[*triticea* Erikss.]: [I?]; II III *Triticum vulgare* Vill., [*Secale cereale* L.].

uliginosa Juel: I *Parnassia palustris* L.; II III *Carex Goodenoughii* Gay

Vaginatae Juel: I *Saussurea alpina* DC.: II III *Carex vaginata* Tausch. *verbenicola* Arth. v. *Vilfæ*.

Vilfæ Arth. et Holw. I *Verbena stricta* Vent., *urticifolia* L.; II III *Sporobolus longifolius* Wood.

Vulpinae Schrost.: I *Tanacetum vulgare* L., *Achillea Ptarmica* L.?, II III *Carex vulpina* L.

Windsoriæ Schw.: I *Ptelea trifoliata* L.; II III *Sieglingia seslerioides* Scrib. (*Triodia cuprea* Jacq., *Tricuspis seslerioides* Torr.).

Winteriana Magnus v. *Allii-Phalaridis*.

PUCCINIASTRUM Otth.

Abietis Chamænerii Kleb.: I *Abies pectinata* Lam. et DC. (*alba* Mill.); II

III *Epilobium angustifolium* L. (*Chamænerion angustifolium* Schnr.),
Dodonæi Will.

PUCCINIASTRUM Otth.

[*Epilobii* (Pers.) Otth]: [I?]; II III *Epilobium roseum* Retz., *hirsutum* L.
Gœppertianum (J. Kühn): I *Abies pectinata* Lam. et DC. *alba* Mill.; I
 II III *Vaccinium Vitis Idæa* L.

Padi (Kunze et Schm.) Diet.: I *Abies excelsa* Poir. (*Æcidium strobilinum*
 (Alb. et Schw.) Reess; II III *Prunus Padus* L., *virginiana* L.

Rostrupia Lagerh. v. *Puccinia (Thalictri)-Elymi*.

Thecopsora Magn. v. *Pucciniastrum*.

UROMYCES Lk.

ad *Æcidium carotinum* Bub.: I *Daucus Carota* L., [II III *Scirpus mari-*
tinus L.?].

Aristidæ Ell. et Ev.: I *Plantago Rugelii* Dec.; II III *Aristida oligantha*
Michx.

Berulæ-Scirpi Kleb.: I *Berula angustifolia* Koch; II III *Scirpus mari-*
tinus L.

Dactylidis Otth: I *Ranunculus bulbosus* L., *repens* L., [*acer* L., *polyan-*
themus L.?]; II III *Dactylis glomerata* L.

Euphorbiæ-Astragali Jordi (1904): I *Euphorbia Cyparissias*, I II *Astra-*
galus Glycyphyllos, *Oxytropis montana*, *campestris*, *glabra*, *lap-*
ponica *).

Euphorbiæ-Corniculati Jordi (1904): I *Euphorbia Cyparissias*, II III *Lo-*
tus corniculatus.

Graminis (Niessl): Bub. 1904; I *Seseli glaucum* L. (*Æcidium Seselis* Niessl)
 III *Arrhenatherum*, *Poa*?

Junci (Desm.) Tul.: I *Pulicaria dysenterica* Gærtn. (*Inula dysenterica* L.);
 II III *Juncus obtusiflorus* Ehrh.

lineolatus v. *Scirpi*, *Berulæ-Scirpi*, *Pastinacæ-Scirpi*, *Maritimæ* ad *Æci-*
dium carotinum.

Maritimæ Plowr.: I *Glaux maritima* L.; II III *Scirpus maritimus* L.

Pastinacæ-Scirpi Kleb.: I *Pastinaca sativa* L., [*Berula angustifolia* Koch];
 II III *Scirpus maritimus* L.

Pisi (Pers.) De Bary: I *Euphorbia Cyparissias* L., *Esula* L.; II III
Pisum sativum L., *arvense* L., *Lathyrus pratensis* L., *Vicia Crac-*
ca L.

*) *Uromyces Astragali* (Opiz) Jordi (1904), cujus st. æcidialis nondum est
 notus, tantum in Astragalo exscapo viget. Cfr. Syll. VII, pag. 550 (species
 collecticia).

UROMYCES Lk.

Poæ Rabenh.: I *Ranunculus auricomus* L. *Ficaria* L., *repens* L., *bulbosus* L.; II III *Poa annua* L., *nemoralis* L., *trivialis* L., *pratensis* L. (stirpes?).

Scirpi (Cast.) Lagerh.: I *Hippuris vulgaris* L.; II III *Scirpus maritimus* L. — I *Sium latifolium* L.; II III *Scirpus maritimus* L.

striatus Schrceter: I *Euphorbia cyparissias* L.; II III *Trifolium agrarium* L.

USTILAGINACEÆ Tul.

Syll. VII p. 451, IX p. 282, XI p. 230, XIV p. 410, XVI p. 367 *).

USTILAGO Pers. — Syll. VII p. 451, IX p. 282, XI p. 230, XIV p. 410, XVI p. 367.

1. **Ustilago Scolymi** Roum. Exsicc. n. 5129 (nomen), Juel in Bull. de la Soc. Myc. de France, Tome XVII, 4^o fasc. 1901, p. 257, cum ic. 1587
— Pulvere brunneo-nigra flores et receptacula ex toto destruyente et involucra obducente; sporis pallidis globulosis, 14-16 μ . diam. vel ellipticis 14 \times 19, reticulatis.

Hab. in floribus *Scolymi grandiflori*, Costantine Afr. bor.

2. **Ustilago violacea** (Pers.) Fuck. — Syll. VII, p. 474. — var. **major** 1588
Clinton in Journ. of Mycol. 1902, p. 139. — Soris inconspicuis in antheris inflatis nidulantibus, in pulverem violaceam solventibus; sporis pallide lilacino-violaceis, ovoideo-globosis, raro irregularibus, episporio paullo incrassato minuteque reticulato, 1 μ . vel ultra crasso 7-12 μ . longis.

Hab. in antheris *Silenes Watsonii*, Washington Amer. bor. 1589

3. **Ustilago Androsaces** Karst. Fungi nov. Lönnb. 1904, p. 7 (Finska Vetensk. Soc.) — Soris fuscis pulverulentis; sporis sphæroideis, levibus, 35-50 μ . diam.

Hab. in ovarii *Androsaces* (filiformis?) prope Baical Sibiriae, Augusto 1902 (O. A. F. LÖNNBOHM).

4. **Ustilago Calandriniae** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 378. — Soris floricolis, involucris floralibus inclusis, 3-4 mm. diam., massam purpureo-atram formantibus; sporis atro-purpureis, ovoideis v. sphæroideis, 13,5-17 μ . long., æqualiter et minute reticulatis areolis 1,5-2 μ . latis, 1-2 μ . alt. 1590

Hab. in floribus *Calandriniae Brewerii* et *C. Menziesii* in California Amer. bor.

*) Conferenda absoluta monographia « North American Ustilaginaceæ », a cl. G. P. Clinton elaborata et in « Proceedings of the Boston Soc. of Natural History » 1904, vol. 31, p. 329-529 inserta.

5. **Ustilago Triplasis** Ell. et Ev. in Clinton. North Amer. Ustil. 1591
 Proceed. Boston Soc. 1904, p. 355. — Soris ovaria occupantibus
 ellipsoideis 3-4 mm. long., membrana obductis, inter glumas ni-
 dulantibus; sporis late rufo-brunneis, vulgo uno latere dilutiori-
 bus, ovoideo-sphaeroideis 5-9 μ . long. plerumque copiose minutis-
 sime echinulatis.
Hab. in ovariis *Triplasis americanae*, Mississippi Ame-
 ricæ bor.
6. **Ustilago Piperii** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1592
 1904, p. 382. — Soris hypophyllis, pustulas formantibus, plus
 minus confluentibus, sæpe marginalibus, tectis, dein erumpentibus
 et massam atro-purpuream ostendentibus; sporis rufo-purpureis
 ovoideis vel sphaeroideis, rarius irregularibus, minute et plerum-
 que oblique striatis, 7-10 μ . diam. vel usque 12 μ . long.
Hab. in foliis *Polygoni Davitiæ*, in California et Poly-
 goni phytolaccæfolii, Idaho Amer. bor. (C. V. PIPER). —
Ustil. Koenigiae et *Ust. Bistortarum* affinis.
7. **Ustilago Rumicis** (Beck.) Clint. North Amer. Ustil. in Proceed. 1593
 Boston Soc. 1904, p. 380, *Ustilago utriculosa* Tul. var. *Rumicis*
 Berk. Grevill. 1874, III, p. 39. — Soris floricolis, axes florum ob-
 ducentibus et massas sordide purpureas formantibus; sporis ovoi-
 deo-sphaeroideis plerumque 11-16 μ . long., atro-purpureis; epi-
 sporio reticulato, areolis 1 μ . alt. et 1-3 μ . diam.
Hab. in floribus *Rumicis Acetosellæ* in Carolina infer. et
Rum. hastatuli, in Alabama, Amer. bor. — *U. Kühneanæ*
 affinis.
8. **Ustilago Bistortarum** (D C) Körn. — Syll. VII, p. 469. — var. 1594
inflorescentiæ Trelease, Harrim. Alaska Exped. Crypt. p. 35. — Spo-
 ris copiosissimis, brunneo-purpureis, subglobosis v. subelongatis,
 9-14, plerumque 11-13 μ . diam., sæpius perfecte levibus.
Hab. in inflorescentia *Polygoni vivipari*, Kadiak, Yakutat,
 Unalaska (TRELEASE). — Sporis levibus et situ in inflorescentia
 a typo dignoscitur.
9. **Ustilago utriculosa** (Nees) Tul. — Syll. VII, p. 476. — var. micro- 1595
 spora Speg. Myc. argent. ser. II, 1902, p. 58.
Hab. ad flores *Polygoni acris*, in uliginosis prope Cordoba
 Argentina. — Varietas a typo sporis conspicue minoribus (6-8
 μ . diam.) angustius areolatis, membrana 1 μ . alt., recedens.
10. **Ustilago tuberculiformis** Syd. Ann. Mycol. 1903, p. 22. — Soris 1596
 hypophyllis, maculis fuscis purpureo marginatis insidentibus, tu-

berculiformibus 1-3 mm. diam., rotundatis v. subrotundatis, membrana tenui diutius tectis, dein liberis, pulverulentis, flavo-brunneis; sporis globosis v. subglobosis, rarius ellipsoideis, dilute flavidis, distincte areolato-verrucosis, $10-13 \approx 9-11$.

Hab. in foliis Polygoni runcinati, prov. Huphe Sinarum (A. HENRY).

11. **Ustilago Tillandsiæ** Patters. apud Clinton in Journ. of Mycol. 1902, 1597 p. 135. — Soris perianthium florum destruentibus, pulverulentis, nigris, 1-3 cm. longis; sporis olivaceo-brunneis ovoideis vel sphaericis, plus minusve collapsis, levibus vel episporio minutissime asperulo donatis, $7-13 \mu$. diam.

Hab. in inflorescentia Tillandsiæ Leiboldianæ in Mexico et in Tillandsiæ spec. in Costa-Rica Amer. centr.

12. **Ustilago Dracænæ** S. da Cam. in J. Veriss. De Almeida, Contrib. 1598 à la Mycoflora de Portugal, 1903, p. 22. — Soris fuligineo-nigricantibus, effusis; sporis fuligineis, globosis vel subglobosis, episporio crassiusculo echinulatoque, initio in glomerulos laxo connexis, mox liberis, $6-8 \approx 6$.

Hab. in foliis Dracænæ Draconis, pr. Barreiro Lusitaniæ (O. VECCHI).

13. **Ustilago Dichromenæ** P. Henn. in Hedw. 1904, pag. 78. — Soris 1599 inclusis, flores destruentibus, atris; sporis subglobosis, angulatis, fusco-brunneis, $8-15 \mu$. diam., episporio minute granuloso.

Hab. in floribus Dichromenæ minarum, Rio de Janeiro Brasiliæ (E. ULE).

14. **Ustilago Nakanishikii** P. Henn. Pilze Japan. II, p. 150, (Hedw. 1600 1904). — Soris olivaceo-atris, pulverulentis in floribus, eos omnino destruentibus; sporis subglobosis vel ellipsoideo-angulatis, $4-8 \approx 4-5 \mu$., episporio fusco-olivaceo vel flavo-fusco levi, filis hyalino-fusculis, ca. 4μ . crassis intermixtis.

Hab. in inflorescentia Caricis brunneæ, Tosa, Uchinotani Japoniæ (K. NAKANISHIKI). — *Ust. olivaceæ* affinis.

15. **Ustilago Diplasiæ** P. Henn., Fungi Amaz. I, p. 155 (Hedw. 1601 1904). — Soris aterrimis, flores omnino destruentibus, inflorescentias crasse deformantibus, inclusis, dein subcrustaceo-pulverulentis; sporis oblongo-ovoideo vel subgloboso-polyhedricis, aterrimis, $20-40 \approx 15-30$, episporio obtuse verrucoso.

Hab. in inflorescentiis Diplasiæ karatifoliæ, Rio Negro, Sao Jaquim Amazoniæ Amer. mer. — Sororum fabrica sporisque magnis et grosse verrucosis distincta species.

16. *Ustilago exigua* Syd. Ann. Mycol. 1903, p. 177, *Ustil. microspora* 1602
 Massee et Rodway in Kew Bull. 1901, p. 160, nec Schroet. et
 Henn. — Soris, paniculas totas implectentibus easque in massam
 pulveraceam transformantibus, obscure fulvis; sporis globosis 3-
 3,5 μ . diam. vel subglobosis 3-4 \times 2-2,5, glabris, dilute olivaceis.
Hab. in inflorescentia *Danthoniæ* penicillatæ in Tasma-
 nia (RODWAY).
17. *Ustilago residua* Clinton in Journ. of Mycol. 1902, p. 133. — 1603
 Soris prominentibus, ovaria destruentibus interdumque vaginas
 foliorum occupantibus, erumpentibus in massam olivaceo-nigram;
 sporis olivaceo-brunneis, ovoideis vel ovato-globosis vel irregulari-
 bus, episporio tenui donatis, reticulatis verisimiliter e granulis con-
 tentis, 5,5-8,5 μ . diam., interdum usque 11 μ . longis.
Hab. in inflorescentia *Danthoniæ* compressæ N. Y., Dant.
 spicatæ N. Hamps., *Danthoniæ* spec., Colorado Amer. bor.
18. *Ustilago Tricuspidis* Ell. et Gall. apud Clinton in Journ. of My- 1604
 col. 1902, p. 135. — Soris ovaria destruentibus, ellipsoideis, circ.
 4 mm. longis; sporis rufo-brunneis, subsphæricis v. globosis, raro
 ovoideis, subverruculoso-echinulatis, 8-11 μ . longis.
Hab. in ovariis *Triodiæ* cupræ (*Tricuspis* seslerioides)
 Montana Amer. bor.
19. *Ustilago heterogena* P. Henn. Fungi Amaz. I, pag. 155 (Hedw. 1605
 1904). — Soris versiformibus, culmos inflorescentiasque implenti-
 bus et deformantibus, atris, in culmis foliisque pustuliformibus
 vel pulvinatis oblongis usque ad 12 cm. longis, ca. 2 cm. crassis,
 epidermide alutacea vel ferruginea vestitis, in floribus ca. 1-2 mm.
 diam.; sporis . . . (diagnosis incompleta).
Hab. in culmis, inflorescentia et floribus *Leptochloæ* virga-
 tæ, Rio Juruá, Bom Fim Amazoniæ — Habitu *Ustilaginis Maydis*
 fere æmula.
20. *Ustilago digitariicola* Speg. Mycet. argent. ser. II, 1902, p. 57. 1606
 — Gemmas foliaries infectas, vaginis foliorum adultorum arete
 vestitas, in massam pulveraceam nigram fibris longitudinalibus
 percursas, omnino transformans; sporis ab initio liberis globosis
 v. e mutua pressione leniter obtuseque angulosis, subopacis, atro-
 fuliginosis, intus dense granulosis, 8-12 μ . diam., tenuiter tunicatis.
Hab. in *Panico* (*Digitaria*) sanguinali, La Plata Argen-
 tinæ. — Species difficillime in vivo perspicienda, post mortem
 plantæ hospitantis facilius invenienda.
21. *Ustilago diplospora* E. et E. Journ. Myc. 1890 p. 119. — Massa 1607

sporarum atro-brunnea; sporis dimorphis, minoribus globosis, rugosis, brunneis, 7-8 μ . diam., majoribus 12-15 μ . diam. globosis, levibus, pallidioribus, fere hyalinis.

Hab. in ovariis Panici sanguinalis, Holly Springs Miss. Am. bor. (TRACY).

22. *Ustilago stipicola* Speg. Myc. Argent. ser. II, 1902, p. 59. — 1608

Soris, paniculas infectantibus ac illas in pulverem atram totam transformantibus, pulverulentis; sporis subglobosis levibus ab initio liberis, tenuiter tunicatis 4-5 μ . diam., ferrugineis.

Hab. in paniculis nondum evolutis Stipæ setigeræ et St. filiculmis in Argentina.

23. *Ustilago nummularia* Speg. Mycet. argent. ser. II, 1902, p. 59. 1609

— Partes infectæ subimmutatæ, vaginis parum ampliatis involutæ; soris compactiusculis, aterrimis, epidermidem parum tumefactam incolentibus; sporis e fronte visis orbicularibus 4-5 μ . diam., latere breviter linearibus 1,5-2 μ . cr., levibus, obscure atro-olivaceis.

Hab. in culmis et inflorescentiis nondum evolutis Stipæ? cujusdam La Plata Argentinae.

24. *Ustilago calcarea* Griffiths in Bull. of the Torr. Bot. Club, 1904. 1610

p. 85, fig. 8. — Pustulis nullis; soris orbicularibus 5 mm. diam. vel elongato-confluentibus, erumpentibus, culmicolis foliicolisque; sporis fuliginis, coacervatis nigris, irregularibus, globosis v. ovatis, sæpe acuminatis, 7-10 μ . diam., guttula magna præditis, episporio minuto, levi donatis.

Hab. in culmis folisque Bouletouæ brevisetæ in solo gypso-calcareo pr. Roswell, in Amer. bor.

25. *Ustilago elegans* Griffiths in Bull. of the Torr. Bot. Club, 1902, 1611

p. 292, fig. 3. — Soris immersis, maturitate folium totum occupantibus; sporis subglobosis, subangulosis vel suboblongis, 10-13 μ . diam.; episporio circ. 1 μ . crasso, minute echinato.

Hab. in foliis Chloridis elegantis, Cochize, Arizona Amer. borealis.

26. *Ustilago Eriocauli* (Mass.) Clinton, in Journ. of Mycol. 1902, p. 137.

Huc ducenda *Cintractia Eriocauli* Masee — Syll. XI, p. 233: cfr. *Ust. Eriocauli* Clint. in Rhodora 1901, III, p. 82.

Hab. in ovaris subimmutatis Eriocauli septangularis, South Billerica Mass. Amer. bor. — Sori nigri, ovoidei, distincte bilobi, 0,7-1 mm., firmi non facile rupti; sporæ in massam atro-olivaceam dense compactæ, irregulariter polygoniæ vel sub-

globosæ, subinde suboblongæ, prominulo-verruculosæ, 9-15 μ . diam.

27. *Ustilago Festucæ-tenellæ* Henn. in Hedw. 1902, p. (61). — Soris 1612
in rachidibus floribusque eos paulo deformantibus contortosque
reddentibus, olivaceo-atris, pulverulentis; sporis subgloboso-angu-
latis, intus granuloso-punctoideis, 13-15 μ ., episporio atro, levi.

Hab. in paniculis *Festucæ tenellæ*, Mexico (HOLWAY).

28. *Ustilago filiformis* P. Henn. in Engl. Bot. Jahrb. 1901, p. 254, 1613
— Sacc. Syll. XVI, p. 1122 (nomen). — Soris ovaria destruentibus,
tubiformibus, flexuosis, usque ad 4 cm. longis, epidermide tenui
papyracea, pallescente tectis; sporis subgloboso- v. ellipsoideo-angu-
latis, primo hyalinis dein brunneis vel atris, ca. 10-12 μ . diam.,
episporio tenui, levi vel punctulato.

Hab. in foliis *Andropogonis contorti*, Usafua Afr. orient.

29. *Ustilago halophila* Speg. Mycet. argent. ser. II, 1902, p. 58. — 1614
Plantæ infectæ fere immutatae; vaginis infirmis sæpius terra abs-
conditis in parte basali v. parum supra fusciscentibus transverse
rugosis incrassatulis, primo integris dein irregulariter disruptis
ac sporas liberantibus; sporis ellipticis v. subglobosis, primo 12-
20-conglomeratis, serius omnibus liberis 6-8 \times 5-6, tenuiter tunica-
tis, olivaceo-fuligineis.

Hab. ad folia radicalia *Distichlidis scopariæ*, prope Ru-
fino Argentinae.

30. *Ustilago Kusanoana* P. Henn. in Hedw. 1904, p. 140. — Soris 1615
in spicis globosis ca. 1,5-2 mm. diam., cuticula firma, vividula
inclusis; sporis rotundato- vel oblongo-angulatis flavo-fusculis,
dense verrucosis, 6-9 \times 5-7.

Hab. in floribus *Eragrostidis ferrugineæ*, Tokyo Japoniæ
(KUSANO).

31. *Ustilago lycuroides* Griffiths in Bull. of the Torr. Bot. Club 1616
1904, p. 84, fig. 11-12. — Soris olivaceo-griseis ovarium implen-
tibus et tumefacientibus, 1-1,5 mm. diam.; glomerulis sporarum
facile secedentibus; sporis brunneis, subglobosis vel subovalibus
angularibusque 9,5-13 μ . diam.; episporio minuto, levi donatis,
granulosis, 1-nucleatis.

Hab. in ovariis *Lycuri phleoidis*, Santa Rita Mountains,
Arizona Amer. bor. (GRIFFITHS et THORNER).

32. *Ustilago Mitchellii* Syd. Ann. Mycol. 1903, p. 23. — Soris ovaria 1617
destruentibus, atro-brunneis; sporis globosis v. subglobosis, rariis
oblongis, obscure fusco-olivaceis, levibus, 8-12 \times 7-10.

Hab. in ovariis *Iseilematis Mitchellii*, Mt. Lyndhurst Australiæ (M. KOCH).

33. *Ustilago Mühlenbergiæ* Henn. in Hedw. 1902, p. (61) nec. Clinton, 1618 in Journ. of Mycol. 1902 (Oct.), quia posterior. — Soris paniculas destruuntibus tumefacientibusque, oblonge ovoideis, 3-6 mm. longis 2-3 mm. latis, diutius epidermide flavo-cinerecente tectis, duris, dein atris pulverulentis; sporis globosis vix acutangulis, fuscis, 4-4,5 μ . diam, episporio atro-fusco, levi.

Hab. in paniculis *Mühlenbergiæ* Pringlei in Mexico, (HOLWAY) et in Mühl. texanæ in Arizona Amer. bor. (FARLOW).

34. *Ustilago montaniensis* E. et E. Journ. Myc. 1890, p. 119. — Massa 1619 sporarum atro-brunnea, subnigricante; sporis subglobosis, 10-14 μ . diam. v. ovato-oblongis, 12-16 \times 10-12, episporio subtuberculoso-reticulato, pallide brunneo.

Hab. in inflorescentia *Mühlenbergiæ* glomeratæ, quæ abortiva manet intra vaginas, Sand Coulee, Mont. Amer. bor. (ANDERSON).

35. *Ustilago Paspali-Thunbergii* P. Henn. in Hedw. 1904, pag. 140. 1620 — Soris atris, pulverulentis in floribus, eos omnino destruuntibus; sporis subgloboso-vel oblongo-angulatis, atro-violaceis, punctatis.

Hab. in floribus *Paspali Thunbergii*, Nikko Japoniæ (KUSANO). — Dimensiones sporarum non indicatæ.

36. *Ustilago Penniseti-japonici* P. Henn. in Hedw. 1904, p. 140. — 1621 Soris cuticula alutacea, corniformi fissa inclusis, flores omnino destruuntibus; sporis subgloboso-angulatis, atro-fuscis, 10-14 μ . granulatis.

Hab. in floribus *Penniseti japonici*, Tokyo Japoniæ (KUSANO).

37. *Ustilago phrygica* Magn. in Bull. Herb. Boissier 1903, n. 7, p. 574, 1622 tab. IV, fig. 1-7. — Soris axim spiculasque *Elymi* occupantibus et solide includentibus, globoso-ellipsoideis, 8-10 \times 6,5-7,5, levibus brunneis, tenuissime reticulatis.

Hab. in spicis *Elymi* criniti, in regione subalpina Phrygiæ.

38. *Ustilago Scolochloæ* Griffiths in Bull. of the Torr. Bot. Club. 1623 1904, p. 86, fig. 4. — Soris epiphyllis, sæpe hypophyllis, matricem irregulariter contortam efficientibus, nigris, oblongo-linearibus, interdum confluentibus; sporis subglobosis, 10-13 μ . diam., intense fuscis, uniformiter denseque obtuse tuberculatis.

Hab. in foliis *Scolochloæ* festuaceæ, Harnery Valley

Oregon Amer. bor. (GRIFFITHS et HUNTER). — *Ustil. echinata* Schroet. peraffinis.

39. **Ustilago sorghicola** Speg. Myc. argent. ser. II, 1902, p. 58. — 1624

Ovariis infectis subcylindraceis, fusco-albidis, longe e glumellis exsertis, utriculiformibus diu persistentibus, 4-8 mm. long., 2 mm. diam., per ætatem irregulariter disruptis, pulvere atro repletis; sporis tenuiter tunicatis, 5-8 μ . diam., obscure fulgineis, levissime eguttulatis v. guttula plus minusve magna ornatis.

Hab. in paniculis vivis Sorghi vulgaris prope La Plata, Argentina.

40. **Ustilago Andropogonis-saccharoidis** P. Henn. in Syd. Ustilag. exs. n. 251 (1901) = *Ustilago Andropogonis-hirtifolii* P. Henn. (ex ipso auctore).

BURRILLIA Setchell — Syll. XI p. 236, XIV p. 428.

1. **Burrillia Echinodori** Clint. in Journ. of Mycol. 1902, p. 154, *Doas-* 1625
sansia Alismatis (Nees) Cornu, Hark. in Proc. Calif. Acad. Ser. II, 1889, p. 231. — Soris follicolis, areas subcirculares v. irregulares formantibus, prominulis, amphigenis, oblongis vel subsphæricis, ad centrum brunneo-parenchymaticis; sporis pallidis ovoideo-sphæroidæis, raro e latere applanatis, crasse tunicatis, 12-18 μ . longis.

Hab. in foliis Echinodori rostrati in California Americæ bor.

2. **Burrillia decipiens** (Wint.) Clint. in Journ. of Mycol. 1902, p. 154.
Huc ducenda *Doassansia decipiens* Wint. — Syll. VII, p. 505.

CINTRACTIA Cornu — Syll. VII p. 480, IX p. 285, XI pag. 233, XIV p. 420, XVI p. 373.

1. **Cintractia algeriensis** Pat. Champ. Algero-Tunis., in Bull. Soc. 1626
Myc. de France T. XVIII, 1902, fasc. I. — Soris nigris, firmis, calcaratis, intra inflorescentiam ortis eamque complementibus, $\frac{1}{2}$ -2 cm. longis, initio pellicula albida et fugaci circumdati dein denudatis; cellulis pelliculæ 10-15 μ . diam.; sporis globosis vel ellipsoideis, levibus, 5-7 μ . diam., brunneis, radiatim dispositis.

Hab. in floribus Danthoniæ Forskahlîi, Biskra Tunisiæ.
— Valde noxia.

2. **Cintractia utriculicola** (Henn.) Clint. in Journ. of Myc. 1902, 1627
p. 143, *Cintractia leucoderma* (Berk.) Henn. f. *utriculicola* Henn. Hedw. 1895, p. 336 et *Cintr. axicola* (Berk.) Cornu f. *spicularum* Juel — Syll. XIV, p. 421. — Soris in ovariis evolutis, ovoideis

vel subsphæricis, 3-6 mm. diam., epidermide velatis dein apice erumpentibus; sporis intense rubro-brunneis, sæpe subopacis, interdum lateraliter compressis, oblongo-circularibus, levibus, 11-16 μ . longis.

Hab. in ovariis *Rhynchosporæ* spec. in Mexico.

3. *Cintractia affinis* Peck in Rep. of the State botanist. 1902, p. 28. 1628

— Soris elongatis continuis 12-48 mm. long., crusta alba velatis, dein erumpentibus, subpulverulentis, nigris; sporis globosis vel subglobosis, minute denseque papillatis, indistincte gelatinoso-hyalino-tunicatis, nigris, 15-20 μ . diam.

Hab. in caulibus vivis *Rhynchosporæ macrostachyæ* Smithtown, Amer. bor. — *C. leucodermæ*, *affinis*.

4. *Cintractia externa* (Griff.) Clint. in Journ. of Myc. 1902, p. 142. 1629

Tilletia externa Griffiths in Torr. Bot. Club. 1902, p. 290, f. 12. — Soris atris, intra ovaria pulverulentis; sporis in massa nigris, forma magnitudineque variabilibus, subgloboso-ellipsoideis v. irregularibus vel angulosis, intense fuscis 18-23 \times 10-13 vel subglobosis 17-21 μ . diam., granulosis; episporio crassiusculo, levi, subhyalino, 2-2,5 μ . crasso.

Hab. in ovariis *Caricis filifoliæ* pr. Buffalo, Wyo (WILLIAMS et GRIFFITHS), in Montana (F. W. ANDERSON) in Nebraska (T. A. WILLIAMS) Amer. bor.

5. *Cintractia axicola* (Berk.) Cornu — Syll. VII, p. 480. — var. 1630

minor Clint. in Journ. of Mycol. 1902, p. 143. — Soris minoribus; sporis quoque minoribus 10-13 μ . long.

Hab. in paniculis *Cyperi Grayii*, New York, Amer. bor.

6. *Cintractia Cyperi* Clinton, North Amer. Ustil. in Proceed. Boston 1631

Soc. 1904, p. 400. — Soris in spicularum interiore nidulantibus demum totas glumas inficientibus, sed non deformantibus; sporis rufo-brunneis, plus minus agglutinatis sed facile secedentibus, oblongo-polyhedricis, levibus, sed ob compressionem minute atrolineatis 12-18 μ . diam. vel usque 22 μ . long.

Hab. in inflorescentia *Cyperi filiculmis*, Connecticut Americæ borealis. — Subaffinis *Cintractiæ Montagnei*.

7. *Cintractia limitata* Clint. North Amer. Ustil. in Proceed. Boston 1632

Soc. 1904, p. 399. — Soris in spiculis nidulantibus initio inclusis et sporis semi-agglutinatis demum pulverulentis et spiculas purpureo-nigro inquinantibus; sporis vulgo atro-rufo-brunneis, ex ovoideo sphaeroideis subinde leviter polyhedricis, levibus, 9,5-14 μ . long., contentu sæpe cavernoso.

Hab. in inflorescentia *Cyperi filiculmis*, Connecticut Americæ borealis.

8. *Cintractia Taubertiana* (Henn.) Clint. in Journ. of Myc. 1902, p. 142. — Huc ducenda *Ustilago Taubertiana* Henn. — Syll. XI, p. 231.

Hab. in fructibus *Rhynchosporæ tenuis* in Brasilia et Rhync. albæ, cephalanthæ, fascicularis, in expansæ in Amer. bor.

9. *Cintractia Psilocaryæ* (Tr. et Earle) Clint. l. c. — Huc ducenda *Ustilago Psilocaryæ* Tr. et Earle — Syll. XVI, p. 368.

Hab. in ovariis *Psilocaryæ nitentis*, scirpoidis et rhynchosporoidis in Amer. bor.

10. *Cintractia Luzulæ* (Sacc.) Clint. l. c. — Huc ducenda *Ustilago Luzulæ* Sacc. — Syll. VII, p. 463.

Hab. quoque in ovariis *Luzulæ campestris*, Amer. bor.

DOASSANSIA Cornu — Syll. VII p. 502, IX p. 288, XI p. 235, XIV p. 427, XVI p. 378.

1. *Doassansia Peplidis* Bubák, (Esterr. Bot. Zeitschr. 1903, p. 51. — 1633

Soris minutis, amphigenis, hemisphaericis, flavo-brunneolis, diaphanis, fusco-marginatis, demum nigricantibus, sæpe totas folii paginas occupantibus, 150-250 μ . diam.; cellulis periphericis sterilibus, late castaneis, inæqualiter oblongis, 20-22 μ . long.; sporis plus minus regulariter globosis, 11-13,2 μ . diam. vel piriformibus 13-17 \approx 11-13, membrana tenui flavida, contentu hyalino.

Hab. in foliis *Peplidis alternifoliæ* prope Haskoro Bulgariæ (Ph. C. J. PODPERA).

2. *Doassansia Reukauffii* P. Henn. Hedw. 1904, p. 434. — Soris hy- 1634

pophyllis gregariis, subglobosis, primo epidermide subpallida tectis, dein liberis rufo-brunneis, ca. 140-200 μ . diam.; sporis subglobosis vel ellipsoideis angulatis ca. 6-10 μ . diam., intus granulatis, episporio rufo-brunneo, levi.

Hab. in foliis vivis *Hydrocharitis morsus-ranæ*, Weimar Germaniæ Julio 1904 (E. REUKAUF). — Sori subglobosi, compactiusculi perfecta maturitate ab epidermide omnino solvuntur.

3. *Doassansia Utriculariæ* P. Henn. in Hedw. 1904, p. 78. — Ma- 1635

culis amphigenis, atris, irregulariter rotundatis vel confluentibus; soris gregariis punctiformibus, elevatis, atris; sporis subgloboso-angulatis, 12-14, episporio levi, atro-fusco.

Hab. in foliis *Utriculariæ reniformis*, Serra de Itatiaia, Rio de Janeiro Brasilæ (C. ULE).

ENTYLOMA De Bary — Syll. VII p. 487, IX p. 286, XI p. 233, XIV p. 423, XVI p. 375.

1. *Entyloma Leucanthemi* Syd. Ann. Mycol. 1903, pag. 237. — Ma. 1636
culis sparsis vel aggregatis, rotundatis 1-3 mm. diam., in vivo dilute flavidis, in sicco virescentibus, planis; sporis globosis, subglobosis v. rarius late ellipsoideis, levibus, dilute flavo-brunneolis, 35-56 \times 30-48, membrana crassa, usque 8 μ .

Hab. in foliis *Chrysanthemi Leucanthemi* in Istria (L. GÖRZ).

2. *Entyloma Holwayi* Syd. Ustilag. exs. n. 282. — Soris maculas 1637
utrinque conspicuas sparsas rotundatas v. irregulares initio flavo-brunneas dein brunneas 3-6 mm. latas, planas efformantibus; sporis globosis v. subglobosis, levibus, pallide flavo-brunneis, 11-13,5 μ . diam., episporio 1,5-2 μ . cr., hinc illinc irregulariter incrassato-angulato.

Hab. in foliis *Cosmi sulphurei*, Chapala Mexici (E. W. D. HOLWAY).

3. *Entyloma Ceanthes* R. Maire in Bull. Soc. Bot. de France 1901, 1638
Tom. 48, pag. 208. — Pustulis albis, amphigenis, 1 mm. diam.; sporis saepe concatenatis, globosis, hyalinis, episporio levi, 1-1,5 μ . crasso præditis, 8-4 μ . diam., rarius in matrice viva germinantibus; promycelio apice 2-4 sporidiola bacillaria vel fusiformia generante; conidiis nullis visis.

Hab. in foliis vivis *Ceanthes apiifoliæ*, Zerubia Corsicæ.

4. *Entyloma Lini* Oudem. Contr. XX, Mycol. Pays-Bas, 1904, p. 1091 1639
(Ned. Kruidk. Arch.). — Sporis in foliis, nunc immutatis, nunc flavo-maculis orbicularibus 1-3 mm. diam. innatis et late distributis inter cellulas mesophylli, globulosis subinde oblongis, pallide fulvis 9,3-14 μ . diam., episporio levi, perfecte hyalino, e stratis concentricis pluribus composito.

Hab. in foliis *Lini* usitatissimi, Wageningen Hollandiæ (L. BROEKEMA). — Germinatio nondum observata.

5. *Entyloma Tozziæ* Heinricher, Berichte Deut. bot. Gesell. 1901, 1640
p. 363, c. icon. — Sporis in parenchymate foliorum intercellularibus, globoso-ellipsoideis, 8-12 μ . diam., membrana crassa duplici.

Hab. in foliis *Tozziæ alpinæ*, Hall Tirolæ. — Nec bullas nec alias deformationes generat.

6. *Entyloma Ameghinoi* Speg. Mycet. Argent. ser. II, 1902, pag. 57. 1641
 — Maculis vix ullis pallidis, diffusis; acervulis in parenchymate nidulantibus, extus, in sicco, vix prominulis, 100-250 μ . diam., sæpe epiphyllis et confluentibus; sporis 1-4 in quaque cellula e globoso-ellipsoideis 16-24 μ . long. v diam., tunica crassiuscula vestitis, levibus 1-2 guttulatis, ochraceis.

Hab. in foliis vivis *Ranunculi Cymbalariae* secus Rio Chico, Patagonia austr.

7. *Entyloma Schweinfurthii* Henn. in Hedw. 1902, p. (210). — Maculis 1642
amphigenis, sparsis vel gregariis, oblongis vel irregulariter rotundato-explanatis, 1-2,5 \approx 1-1,5 mm., atris v. atro-plumbeis; sporis epidermide tectis, subglobosis, ovoideis v. ellipsoideis, intus granulatis, 14-20 \approx 13-18, episporio crasso, levi, atro-brunneo.

Hab. in foliis *Polygoni monspeliensis*, pr. Pyramidem Giseh, Ægypt. (SCHWEINFURTH).

8. *Entyloma Dietelianum* Bubák, Ann. Mycol. 1903, p. 255, *Urophlyctis* 1643
pulposa Bub. in Cesterr. bot. Zeitschr. 1900, n. 9, nec Auctor.
 — Pustulis sparsis v. gregariis, 0,5-1 mm. diam., rufo-brunneis, initio subtremelloideis, dein nigricantibus, diu epidermide tectis; sporis versiformibus, globosis v. ovoideis v. ob pressionem mutuam angulosis elongatisque, 9-13 μ . diam. v. 11-15,5 \approx 11-13, e mycelio lateraliter oriundis; exosporio levi, subgelatinoso, hyalino, 1 μ . cr; endosporio flavo-brunneo, 1 μ . cr.

Hab. in foliis *Ambrosiniæ Bassii*, Sinnai, Punta Corsetta Sardiniae (MARTELLI).

9. *Entyloma hieronense* Har. et Pat. Bull. Soc. Myc. 1904, p. 61. — 1644
 Soris maculas utrinque conspicuas longitudinaliter seriatas, irregulares paululum prominulas, atro-cinereas, emarginatas, $\frac{1}{4}$ - $\frac{1}{2}$ mm. latas efformantibus; sporis numerosis totum folii parenchyma occupantibus, crebre et dense aggregatis, pallide (sub lente) brunneis, valde difformibus et varie angulatis, episporio crassiusculo subfusco et obscuriori præditis, plerumque 8-10 μ . cr.

Hab. in foliis basilaribus *Poæ bulbosæ* in arenosis pr. Hieronem (Noirmoutier) Galliae occid. (MÉNIER).

10. *Entyloma betiphilum* Bubák, Zeitschr. Landwirth. Versuchsstat. Cesterr. 1901, p. 477. — Species dubia, immo ex ipso cl. auct. in litt. delenda.

Hab. parasitice in perigonis *Betæ vulgaris* in Austria.

MELANOPSICHIMUM G. Beck. in Ann. Natur hist. Hof-Mus. Wien 1894, n. 9, p. 22. (Etym. *melanos* niger et *psia psychos* mica). — Spore muco gelatinoso dein indurato in crustas atras conglutinatae, in loculis intra matricem excavatis nidulantes, involuero duriusculo cinctae. Cetera ut in *Ustilagine*.

1. **Melanopsichium austro-americanum** (Speg.) Beck loc. cit. *Ustilago austro-americana* Speg. — Syll. VII, p. 457: cfr. Clint. in Journ. of Mycol. 1902, p. 141.

Hab. in caulibus vivis Polygoni avicularis, P. hydro-piperis, P. lapathifolii, P. lapath. var. incarnati, P. pennsylvanici, P. virginiani, P. acris, in Argentina et in Amer. bor.

MYCOSYRINX Beck von Mannagetta in Ann. Naturhist. Hof-Museum Wien 1894, p. 123 (Etym. *myces* et *syrinx* tubus, fistula). A genere affini *Schröteria* differt hyphis sporigeris intra stroma subtubulare inclusis sporisque potius acrogenis ut in gen. *Ustilagine*.

1. **Mycosyrinx Cissi** (DC.) Beck l. c., Penzig in Malp. 1900, p. 6, tav. XIX-XX, *Schröteria Cissi* (DC.) De Toni — Syll. fung. VII, pag. 501. — Sec. Penz. l. c. nascitur pluribus locis in America tropicali et Africa occid. in pedunculis floralibus Cissi sicoyoidis, C. acidæ, C. uviferæ, C. diffusifloræ, C. erosæ etc.
2. **Mycosyrinx arabica** (Henn.) Penz. l. c. *Schröteria Cissi* var. *arabica* P. Henn. — Syll. fung. XI, pag. 235. — *Schr. arabica* P. Henn. in Bull. Herb. Boiss. 1893, p. 115. — A *M. Cissi* sporis paullo majoribus et intra ramulos vegetativos ramulosque racemorum generatis (nec in pedunculis floralibus).

Hab. in Cisso quadrangulari in Arabia.

SOROSPORIUM Rud. — Syll. VII p. 511, IX p. 288, XI p. 237, XIV p. 428, XVI p. 379.

1. **Sorosporium Caricis** Ferraris in Ann. Ist. Bot. Roma 1902, p. 191. 1646
— Soris omnino inclusis, aterrimis, pulverulentis; glomerulis subglobois, atris e sporis numerosis compositis (2-20), 14-36 μ . diam.; sporis retundato-polygonalibus, subæqualibus, fusco-brunneis, 8-12 μ . diam.

Hab. in floribus masculis Caricis præcoccis prope Pinerolo Italiæ bor.

2. **Sorosporium Arundinellæ** Syd. in Hedw. 1901, p. (2). — Ovaria 1647
ex toto implens, destruens et massas aterrimas formans; glomerulis

sporarum, forma et magnitudine irregularibus, opacis e sporis numerosis compositis; sporis globosis v. subglobosis, opacis, atro-brunneis, verruculis obsitis, 5-6,5 μ . diam.

Hab. in ovariis Arundinellæ anomalæ, Omiya, Saitama Japoniæ (NISHIDA et NAMBU).

3. *Sorosporium provinciale* (Ell. et Gall.) Clinton, Journ. of Mycol. 1648 1902, pag. 142, *Sorosporium Ellisii* Wint. var. *provinciale* Ell. et Gall. — Syll. IX, p. 288. — Soris linearibus, 6 cm. longis, erumpentibus; massa sporarum nigro-brunnea, granulosa, 50-100 μ . diam. vel longiore; sporis ovoideis vel subsphaericis, minute verruculosis, episporio 3 μ . crasso, 14-19 μ . crassis, rufo-brunneis.

Hab. in inflorescentia Andropogonis furcati, Saline County Mo. in Nebraska Amer. bor.

4. *Sorosporium contortum* Griffiths in Bull. of the Torr. Bot. Club. 1649 1904, p. 83, fig. 1-3. — Soris 5-30 mm. longis, 0,6-1,5 mm. crassis, immersis vel in columellam cylindricam desinentibus; glomerulis sporarum subglobosis vel ovoideis, sæpe angulosis, 50-62 vel 50-80 μ . diam.; sporis subglobosis vel anguloso-compressis, intense fuscis, 5-8 μ . diam., episporio minuto, levi donatis, 1-nucleatis.

Hab. in floribus Andropogonis contorti, Santa Rita Mountains, Arizona Amer. bor. (GRIFFITHS).

5. *Sorosporium Eriochloæ* Griffiths in Bull. of the Torr. Bot. Club. 1650 1904, p. 84, fig. 13-16. — Soris pulverulentis, nigris, partes florales replentibus et subtumefacientibus; glomerulis subglobosis v. angulosis irregularibusque, 65 \approx 50 vel 50-105 μ . diam.; sporis intense fuscis, subglobosis, 10-13,5 μ . diam., angulosis, episporio minuto levi donatis, granulosis, 1-nucleatis.

Hab. in floribus Eriochloæ punctatæ, Empire Rauch, Santa Rita Mountains, Arizona Amer. bor. (GRIFFITHS et THORNER).

6. *Sorosporium Williamsii* Griffiths in Bull. of the Torr. Bot. Club. 1651 1902, pag. 296, fig. 5. — Soris culmicolis pulverulentis, totam plantam destruuntibus; sporis in massam cylindraceam erectam vel curvulam, 65-100 \approx 20-30 conglutinatiss, maturitate indistinctis, fuscis, subglobosis vel angularibus, 5-7 μ . diam., episporio levi crassiusculo.

Hab. in vaginis et in culmis Stipæ Richardsonii in monte Big Horn, Wyo. Amer. bor. (T. A. WILLIAMS et Dr. GRIFFITHS).

SPIIACELOTHECA De Bary. — Syll. VII p. 499.

1. **Sphacelotheca Hydropiperis** (Schum.) De Bary — Syll. VII, f. 499. 1652
— var. *borealis* Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 395. — A typo differt sororum columella robustiore et pseudomembrana minus prominente, cellulis sterilibus hyalinis vel dilute coloratis, subsphæricis, crassiuscule tunicatis; sporis paullo minoribus quam cellulis sterilibus, violaceo-purpureis, ovoideo-sphæricis vel subirregularibus, vix minutissime granulosis vel fere levibus 8-11 μ . long.

Hab. in ovariis *Polygoni bistortoidis*, Washington et Wyoming Amer. bor.

2. **Sphacelotheca Chrysopogonis** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, p. 387. — Soris ovaria omnia plerumque occupantibus, lineari-oblongis, 3-5 mm. longis, inter glumas membranas steriles et massas sporarum semi-agglutinatorum, nigras, formatibus; columella minuta sed evidenti; cellulis sterilibus hyalinis, sæpe in glomerulos secedentibus, subsphæricis, sporis paullo latoribus; sporis rufo-brunneis, ovoideo-subsphæricis, subinde angulosis, sæpe intus punctatis, obscure verruculosis, vel sublevibus 8-11 μ . longo.

Hab. in ovariis *Chrysopogonis nutantis*, Chappala Mexici. — Inter *Sph. Sorghi* et *Sph. moniliferam* media species.

3. **Sphacelotheca Seymouriana** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 387, *Sorosporium Syntherismæ* (S.) Farl. p. p., *Sorosporium Ellisii* Winter p. p. — Soris ovaria occupantibus et massas lineares 4-7 mm. longas formantibus et inter glumas extendentibus, apice erumpentibus et columellam sporasque agglutinatas ostendentibus; cellulis sterilibus hyalinis, vulgo subsphæricis et membranam irregularem formantibus, sporas magnitudine æquantibus; sporis læte brunneis, vulgo subsphæricis vel polyhedricis, rarius ovoideis 7-12 μ . longis, sublevibus, contentu sæpe lacunoso.

Hab. in ovariis *Andropogonis virginici*, Alabama, et *Andropogonis spec.* Georgia Amer. bor.

4. **Sphacelotheca Paspali-notati** (Henn.) Clint. in Journ. of Mycol. 1902, p. 140, *Ust. Paspali-notati* Henn. sp. n. in herb. Holway. — Soris linearibus, 4-6 cm. longis; sporis rubro-brunneis, ovoideo-globosis vel subangulosis, minute verruculosis, 7-10 μ . diam.

Hab. in inflorescentia *Paspali-notati*, in Mexico Amer. bor.

5. **Sphacelotheca pamparum** (Speg.) Clint. in Journ. of Mycol. 1902,

- p. 140. — Huc ducendæ sunt, sec. cl. Auct., *Ustilago pamparum* Speg. — Syll. VII, p. 455 — et *Ust. Kolaczakii* Kühn. — Syll. I. c.
6. *Sphacelotheca diplospora* (Ell. et Ev.) Clint. in Journ. of Mycol. 1902, p. 140. — Huc ducenda *Ustilago diplospora* Ell. et. Ev. — Syll. IX, p. 284.
7. *Sphacelotheca Sorghi* (Link). Clint. I. c. — Huc ducenda *Ustilago Sorghi* (Lk.) Pass. — Syll. VII, p. 456 — seu *Cintractia Sorghi vulgaris* Clint. in Bull. Agr. Exp. Stat. 1897, p. 404.
8. *Sphacelotheca Ischæmi* (Fuck.) Clint. I. c. — Huc ducendæ: *Ustilago Ischæmi* Fuck. — Syll. VII, pag. 454 — *Ustilago cylindrica* Peck. — Syll. VII, p. 468 — *Cintractia Ischæmi* Syd. in Cest. Bot. Zeit. 1901, p. 12.
9. *Sphacelotheca monilifera* (Ell. et Ev.) Clint. I. c. — Huc ducendæ: *Ustilago monilifera* Ell. et Ev. — Syll. XIV, p. 420 — *Ustil. Andropogonis-contorti* Henn. n. spec. in herb. Holway. — An *Ustil. filiformis* Henn. — Syll. XVII, p. 477.
10. *Sphacelotheca Andropogonis-hirtifolii* (Henn.) Clint. I. c. — Huc ducendæ: *Ustilago Andropogonis-hirtifolii* Henn. — Syll. XVI, p. 372 — et *Ust. Andropogonis-saccharoidis* Henn. in Syd. Ustil. 1901, n. 251.
11. *Sphacelotheca occidentalis* (Seym.) Clint. I. c. — Huc ducendum *Sorosporium Ellisii* Wint. — var. *occidentalis* Seym. in Ell. et Ev. M. A. Fr. 2265, fasc. 1889, et *Ustilago Andropogonis* Kell. et Sw. — Syll. IX, p. 284.
12. *Sphacelotheca montaniensis* (Ell. et Holw.) Clinton I. c. — Huc ducenda *Ustilago montaniensis* Ell. et Holw. — Syll. IX, p. 284.
13. *Sphacelotheca Reiliana* (Kühn) Clint. I. c. — Huc ducendæ *Ustilago Reiliana* Kühn — Syll. VII, p. 471 — *Cintractia Reiliana* (Kühn) Clint. in Bull. Ill. Agr. Exp. Stat. 1900, p. 346.

THECAPHORA Fing. — Syll. VII p. 507, IX p. 289, XI p. 237, XIV p. 428.

1. *Thecaphora Thornberi* Griffiths in Bull. of the Torr. Bot. Club. 1856 1904, p. 88, f. 9-10. — Soris ovaria tumefacientibus, sphaericis 4-7 v. ultra mm. diam., maturitate irregulariter erumpentibus; massa sporarum 70-120 μ . diam., rufo-brunnea; sporis episporio minuto donatis, granulosis, 10-13 μ . diam. ovalibus, subsphaericis sæpe compresso-angulosis, semper conglutinatis.

Hab. in ovarii Clathoricis lanuginosæ, Santa Rita Mountains, Arizona Amer. bor. (GRIFFITHS et THORNBERRY).

2. *Thecaphora mexicana* Ell. et Ev. apud Clinton in Journ. of Mycol. 1902, p. 146. — Soris cauliculis, pustulas subglobosas 4 mm. diam., firmas, erumpentes formantibus; massa sporarum rubro-lutea, subglobosa 50-90 μ . diam.; sporis 15-30 in singulis glomerulis, initio angulosis dein irregularibus, oblongo-polyhedricis vel subglobosis, parce papillatis, 16-22 raro 25 μ . diam.

Hab. in caulibus *Guardiolæ platyphyllæ* in Mexico Amer. bor. (Doct. PALMER).

3. *Thecaphora tunicata* Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 422. — Soris floricolis, massas subsphæricas 2-3 mm. formantibus, florum involucris inclusis, initio firmis, dein erumpenti-pulveraceis; glomerulis læte castaneo-brunneis, oblongis vel subsphæricis polygonis 70-100 μ . long.; sporis diu connexis subhyalino-flavidis, omnino irregularibus, vulgo oblongo-sphæroides, 12-18 μ . long. vel elongato-clavatis usque 27 μ . long., superficie libera episporio prominenti saturate colorato, verrucoso 3-6 μ . crasso prædita.

Hab. in floribus *Boerhaviæ* in Mexico.

4. *Thecaphora piluliformis* B. et C. — Syll. VII, p. 509. — Huc ducenda sunt, sec. cl. Clinton in Journ. of Mycol. 1902, p. 145, *Tolyposporium Davidsonii* Diet. — Syll. XI, p. 235 — *Pæcilosporium Davidsonii* Diet. — Syll. XVI, p. 380 — *Sorosporium Bigeloviæ* Griff. in Bull. Torr. Bot. Club. 1902, p. 380, cum icone.

Hab. in inflorescentiis *Bigeloviæ venetæ*, in California, *Bigeloviæ* spec. in Arizona Amer. bor. — Secundum cl. Clinton l. c. Dietel et Holway per errorem determinaverunt matricem *Tolyposporii*, quæ non est *Atriplex* sed *Bigelovia*.

5. *Thecaphora cuneata* (Shof.) Clint. l. c. — Huc ducenda: *Sorosporium cuneatum* Shofield. — Syll. XIV, pag. 429 — *Sorosporium Solidaginis* Ell. et Ev. — Syll. XI, p. 237.

Hab. in *Grindelia squarrosa*, Nebraska Amer. bor. et in *Solidagine missouriensi*, Kansas Amer. bor.

6. *Thecaphora Trailii* Cooke — Syll. VII, p. 510 — Sec. cl. Clinton in Journ. of Mycol. 1902, pag. 146 huc ducendæ sunt: *Thecaphora Cirsii* Boud. — Syll. VII, p. 510 — *Schizonella subtrifida* Ell. et Ev. — Syll. IX, p. 288 — *Pæcilosporium Trailii* (Cooke) Vesterg. mycet. rar. sel. 1902, p. 152.

7. *Thecaphora californica* (Hark.) Clint. l. c. — Huc ducendum *Sorosporium californicum* Hark. — Syll. VII, p. 514.

TILLETIA Tul. — Syll. VII p. 481, IX p. 286, XI p. 233, XIV p. 421, XVI, p. 373.

1. *Tilletia texana* Long, apud Clint. in Journ. of Mycol. 1902, p. 149. 1659
— Soris ovaria destruentibus, ovoideo-oblongis, 3-5 mm. diam.; massa sporarum rubro-brunnea cellulis parenchymaticis hyalinis obvoluta; sporis aurantiaco-luteis subglobosis, tuberculis 2-3 μ . d. prominentibus donatis, episporio hyalino, 19-25 μ . diam.

Hab. in ovariis Hordei pratensis, Texas Amer. bor.

2. *Tilletia hypsophila* Speg. Myc. arg. ser. II, 1902, p. 59. — Ovariis 1660
infectis, glumellis immutatis sed late apertis, cinctis, late ellipticis, fuscis 1,5-2,5 mm. long., compactiusculis, inter digitos compressis pulverem ferrugineum emittentibus; sporis ab initio liberis 18-24 μ . diam., tunica crassa duplici vestitis, interna ferruginea, dense ruguloso-verruculosa, externa levi hyalina.

Hab. in ovariis Stipæ caespitosæ et St. tenuissimæ, Tucuman et Salta Argentinae.

3. *Tilletia Wilcoxiana* Griffiths in Bull. of the Torr. Bot. Club. p. 88, 1661
fig. 17. — Soris totum ovarium implentibus et tumefacientibus, olivaceo-griseis, fusiformibus; sporis in cumulo pallide brunneis, subglobosis, 15-19 μ . diam., hyalinis, episporio crassiusculo donatis.

Hab. in ovariis Stipæ eminentis v. Andersonii, Santa Monica Californiae (H. E. HASSE).

4. *Tilletia Earlei* Griffiths in Bull. of the Torrey Bot. Club. 1902, 1662
p. 290, fig. 2. — Soris culmicolis, internodia tumefacientibus, per rimas usque 10 cm. longas erumpentibus, culmos totos contorquentibus; sporis pallide brunneis, globosis, tuberculis validis circ. 2 μ . crassis obvolutis, episporio hyalino, tubercula includente, levi 13-18 μ . diam.

Hab. in culmis deformatis Agropyri occidentalis, Aberdeen, S. D. Amer. bor.

5. *Tilletia Velenovskyi* Bubák, Cesterr. Bot. Zeitschr. 1903, p. 51. — 1663
Soris brunneo-violaceis, ovaria implentibus ibique inclusis; sporis globosis v. breve ovoideis, 22-28 μ . diam.; episporio late violaceo-brunneo, translucido, striato; striis depressis, vix 1 μ ., areolas 4-angulares v. polygonas 2-4 μ . diam. formantibus.

Hab. in ovariis Bromi arvensis pr. Sadovo Bulgariae (VELENOVSKY). — *Till. Lolii* subaffinis.

6. *Tilletia Bornmülleri* Magn. in Bull. Herb. Boissier 1903, n. 7, 1664
p. 574, tab. IV, fig. 8-12. — Sporis in ovariis nidulantibus, vix

pulverulentis, subglobosis, $23 \approx 20$, eleganter reticulatis, areolis in sporæ diametro majori 8-10.

Hab. in ovariis *Elymi criniti* in regione subalpina Phrygiæ.

7. *Tilletia Menieri* Har. et Pat. Bull. Soc. Mycol. 1904, p. 61. — Soris ¹⁶⁶⁵ brunneo-ferrugineis, ovaria complentibus; sporis pallide ferrugineis, globosis, 20-24 μ . diam., areolatis, episporio 4 μ . crasso, tuberculis prædito.

Hab. in ovariis *Phalaridis arundinaceæ* pr. St. Philibert-de-Grand-Lieu Galliae occidentalis (MÉNIER).

8. *Tilletia* ? *Chrysosplenium* v. Höhn. Ann. Myc. 1904, pag. 38. — ¹⁶⁶⁶ Soris archegonia *Bryi* sp. vesiculoso-deformata, ca. 900 μ . long. et 700 μ . lat. explentibus, aureo-ochraceis, pulverulentis, primum tunica archegoniorum tectis, dein ex illa erumpentibus; sporis non conglobatis, globosis vel subglobosis, 22-28 μ . crassis, subtiliter sed acute et dense spinuloso-verrucosis, aureo-ochraceis.

Hab. in archegoniis *Bryi* (caespiticii?) adhuc vivis prope Michelet (Fort national) Algeriæ (Kabyliæ), mense Aprili.

9. *Tilletia* ? *abscondita* Syd. Ann. Mycol. 1903, pag. 174. — ¹⁶⁶⁷ Sporis pulveraceis in capsulis *Anthocerotis* nidulantibus, globosis v. subglobosis, rarius ellipsoideis, pallide brunneis verrucoso-reticulatis, 11-17 μ . diam., rarius usque 20 μ . long., episporio circ. 2,5 μ . cr.

Hab. in capsulis *Anthocerotis dichotomi*, in horto Monrepos, in insula Corfû. — Diu sporæ supra descriptæ ut *Hepaticæ* microsporæ habitæ sunt, tamen ut *Ustilaginea* parasitica aptius, teste Sydow, habendæ.

10. *Tilletia Maclagani* (Berk.) Clint. in Journ. of Mycol. 1902, p. 148. — Huc ducenda *Ustilago Maclagani* Berk. — Syll. VII, p. 460 — *Ustil. rotundata* Arth. VII, pag. 479, *Tilletia rotundata* (Arth.) Ell. et Ev. N. A. F. 1887, n. 1894, *Tilletia rotundata* Mass. in Kew. Bull. 1899, p. 145.

11. *Tilletia Cathestechi* (Henn.) Clint. l. c. p. 149. — Huc ducenda *Ustilago Cathestechi* P. Henn. — Syll. XIV, p. 417.

TOLYPOSPORIUM Wor. — Syll. VII p. 501, XI p. 235, XIV p. 425, XVI p. 377.

1. *Tolyposporium Eriocauli* Clint. Rhodora II, 1901, p. 82, f. 1. — ¹⁶⁶⁸ Soris griseolis, ovoideis, subinde bilobis, 1-2 mm. long. facile ruptis; sporarum glomerulis firmis, nigris, perfecte opacis, irregulariter oblongis v. subsphaericis, sæpe angulosis, 65-275 μ . diam.; sporis subglobosis, læte coloratis, inter se adhærentibus, secedendo

vero, ob rupturam, reticulationes spinulasque ostendentibus v. integris remanentibus, 8-11 μ . diam., exclusis rupturæ processibus.

Hab. in ovariis subimmutatis florum ♀ *Eriocauli septangularis*, Ellis Mass. Amer. bor.

2. *Tolyposporium Lepidoboli* Mc Alp. Proc. Linn. Soc. New S. Wales 1669 1904, pag. 127. — Nigrum, pulveraceum intra ovaria evolutam; sporis ex articulis numerosis arcte connexis compositis versiformibus, 80-90 μ . long.; articulis globulosis v. polygoniis 12-14 μ . diam., v. 12-16 \times 10-11, episporio asperulo.

Hab. in ovariis *Lepidoboli drapetocolei*, Dimboola Victor Australiæ (READER).

TOLYPOSPORELLA Atk. — Syll. XIV p. 427.

1. *Tolyposporella Brunkii* (Ell. et Gall.) Clint. in Journ. of Mycol. 1902, p. 147. — Huc ducendæ *Ustilago* (*Sorosporium*?) *Brunkii* Ell. et Ev. — Syll. IX, p. 284 — et *Ustilago apiculata* Ell. et Gall. in Tex. Agr. Exp. Station Bull. 1890, p. 29 (nomen).

Hab. in ovariis *Andropogonis argentei*, perforati, saccharoidis, in America bor.

2. *Tolyposporella*? *Nolinæ* Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, p. 426. — Soris phyllogenis dense gregariis confluentibusque et stratum formantibus; glomerulis variabilibus e sporis 2-3-4-pluribusve varie connexis et sæpe secedentibus formatis; sporis olivaceo-nigris oblongis vel ovoideis globosisve, lateribus adhaerentiæ applanatis 11-18 μ . long., episporio crassiusculo, levi.

Hab. in foliis *Nolinæ microcarpæ* Arizona, Amer. bor.

TRACYA Syd. — Syll. XVI p. 378.

1. *Tracya Hydrocharitis* Lagerh. in Vestergr. Myc. rar. selecti, Bot. Not. 1902, p. 175. — Maculis nullis; soris epiphyllis, crebre sparsis v. stratu firmo sporarum constitutis, nudo oculo nigris, punctiformibus, rotundatis, 130-150 μ . diam.; sporis brunneis e vertice visis 7-9 μ . diam., rotundato-angulosis e latere rectangularibus.

Hab. in foliis vivis *Hydrocharitis morsus-ranæ*, Stockholm in Suecia. — Cfr. supra *Doassansia Reukanfi*, p. 481.

UROCYSTIS Rab. — Syll. VII p. 515, IX p. 290, XI p. 237, XIV p. 429, XVI p. 380.

1. *Urocystis Anemones* (Pers.) Schroet. — Syll. VII, p. 518. — var. 1672

andina Speg. Myc. argent. ser. II, 1902, p. 59. — Soris bulbosis aterrimis, initio epidermide velatis, compactis dein erumpentibus et pulverulentis; glomerulis ex ellipticis difformibus, 20-40 × 20-30; sporis centralibus ellipsoideis, 10-18 × 8-10, periphericis subglobosis 5-7 × 4-5 obscurioribus.

Hab. ad caules, involucra et flores *Barneoudiæ* majoris, in alpinis, prope Mendoza, Argentinae. — Var. *japonica* P. Henn. Pilze Japan. II, p. 150 (Hedw. 1904). A typo differt soris multo amplioribus, usque 20 cm. lat., glomerulis quoque majoribus, 30-60 × 30-40, sporis centralibus numerosioribus, globoso-ellipsoideis angulosisque, castaneis, 10-15 μ . diam., periphericis pallidioribus, levibus 6-9 μ . diam. In caulibus et foliis *Anemones japonicæ*, *Tosa Japonicæ* (K. NAKANO).

2. *Urocystis granulosa* Clint. in Journ. of Mycol. 1902, p. 151. — 1673
Soris paniculas occupantibus, ovoideo-oblongis, 5-10 mm. longis, massam globosam granulosam sporarum rufo-brunneo-nigram suberumpentem 28-50 μ . crassam formantibus; cellulis parenchymaticis rubro-luteis, ovoideis vel subsphæricis, sporis repletis, 8-13 μ . latis; sporis intense rubro-brunneis, ovoideo-sphæricis v. pro mutua pressione polyhedricis, levibus 13-19 μ . diam.

Hab. in ovariiis *Stipæ comatæ*, Idaho Amer bor. (HAYDEN).

Genera dubiæ sedis.

USTILAGINOIDEA Bref. — Syll. XIV p. 431, XVI p. 382.

Genus ad interim hic locatum sed, testibus cll. Brefeld et Hennings, statum chlamydosporicum Hypocreacearum spp. sistit. Huc quoque spectat *Ustilaginoidea flavo-nigrescens* (Berk. et C.) Hennings, Hedw. 1904, p. 156, *Ustilago* B. et C. — Syll. VII, p. 467.

1. *Ustilaginoidea Dichronemæ* P. Henn. Fungi Amaz. I, pag. 156 1674
(Hedw. 1094). — Sclerotii ovaria occupantibus et ea omnino destruentibus, globosis, intus duris, corneis flavidis, pulvere atro crasso chlamydosporarum tectis ca. 2-2½ mm. diam.; chlamydosporis globosis atro-cinnamomeis, dense verrucosis, 5-7 μ .

Hab. in ovariiis *Dichronemæ* puberæ Río Negro, Manaos Amer. merid. — Sclerotia hujus speciei soros *Cinctractiæ Caricis* fere æmulantur.

1. *Ustilaginoidea usambarensis* P. Henn. Fungi Afr. orient. II, in 1675
Bot. Jahrb. XXVIII, p. 38. — Sclerotii ovaria occupantibus et ea deformantibus, subglobosis, depressis, cinereo-olivaceis, superne

rimosis, ca. 2 mm. diam., intus duris, pallidis; sporulis subglobosis, hyalino-flavescentibus granulato-verrucosis, 4-5 μ . diam.

Hab. in ovariis *Panici* spec., Usambara Afr. orient. (KUMMER).

GRAPHIOLA Poit. — Syll. VII p. 522, XVI p. 381.

1. **Graphiola Phœnicis** (Mong.) Poit. — Syll. VII, p. 522. — var. 1676
Trachycarpi P. Henn. Pilze Japan II, p. 150 (Hedw. 1904). — Sporulis globoso-angularis, 3-4 μ . diam., membrana levi, crassa, flavo-brunneola.

Hab. in foliis *Trachycarpi excelsæ*, Tosa, Yokimura Japoniæ (T. YOSHINAGA)

2. **Graphiola macrospora** Penz. et Sacc. in Malp. 1901, p. 232. — Soris 1677
laxe gregariis, erumpenti-superficialibus, nigricantibus, globulosis, rugosis, basi sæpe coarctatis, dein umbilicatis, 0,7-1 mm. lat., filamentis fasciculatis, filiformibus, subtortuosis, 2,5 μ . cr., ochraceo-guttulatis; sporis globosis, non v. vix angulosis, 11-15 μ . diam., atro-fuligineis, initio non omnino levibus dein levigatis.

Hab. in rhachide foliorum *Calami*, *Plectocomiæ* etc. in horto bot. Bogor., in insula Java. — Exemplaria non perfecta, hinc stirps adhuc dubia et ulterius inquirenda.

3. **Graphiola cocoina** Pat. Bull. Soc. Mycol. 1904, p. 137. — Pseudo- 1678
peridiis præcipue epiphyllis, sparsis, atris, corneis, elongato-ellipticis, convexis, $\frac{1}{4}$ - $\frac{1}{2}$ mm. longis, rarius solitariis, sæpius 3-5-aggregatis confluentibusque, ex hyphis brunneis gracilibus 2-3 μ . cr. rectis ramosis apice incrassatis subtorulosis compositis; ostioliis linearibus rectis v. flexuosis gleba flavidula ex hyphis erectis parallele stipatis, pellucidis; sporis superpositis ellipsoideis, levibus, 3-5 μ . longis, flavidulis.

Hab. in foliis vivis *Cocoes nuciferæ* in insulis Gambier (SEURAT).

PHYCOMYCETÆ De Bary

Syll. VII p. 181, IX p. 335, XI p. 239, XIV p. 432, XVI p. 383.

Fam. 1. Mucoraceæ DE BARY.

MUCOR Mich. — Syll. VII p. 190, IX p. 335, XI p. 239, XIV p. 432, XVI p. 383 *).

1. **Mucor hiemalis** C. Wehmer in Ann. Mycol. 1903. pag. 39, cum 1679
ic. — Cœspitulis 1 cm. ca. altis, bombycinis, albis, rarius flavido-brunneolis; hyphis myceliaribus variis 7-14 usque 30 μ . diam.; sporangiferis simplicibus, rarius ramosis, erectis, serius collabescentibus; sporangiis globosis, flavidis v. griseis, 52 μ . diam., tunica diaphana, levi; columella globoso-ovoidea, hyalina, 28-48 μ . diam., 25-36 \approx 21-29; sporis numerosis magnitudine et forma ludibundis, 7 \approx 3,2 μ ., ellipsoideis rarius sphaericis, tenue tunicatis; zygosporis non visis.

Hab. in foliis cannabinis udis putrescentibus, hieme in Germania.

2. **Mucor dubius** C. Wehm. in Centralbl. f. Bakteriöl. u. Paras. II, 1680
Abth. VII, p. 318, fig. 15-23. — Cœspitulis 2-3 cm. alt., griseo-flaventibus v. brunneo-griseis; hyphis fertilibus 1 cm. long., initio simplicibus, dein (semper?) sympodialiter ramosis et tunc 2-3 cm. long.; sporangiis globosis, brunneo-flavidis, diaphanis, parvulis, 50 μ . diam., columella globosa, sessili, hyalina, levi, circ. 25 μ . diam.; sporiis ^{pro}aequalibus, ellipsoideis v. fabæformibus, 6 \approx 4, rarius 4 \approx 3, usque 14 \approx 9, membrana tenui; zygosporis ignotis; mycelio interdum in gemmas toruliformes abeunte.

Hab. in crustulis oryzinis javanicis (*Ragi*) in Java, socio *Rhizopode Oryzae* etc. *Mucori javanico* affinis.

*) Quoad species zymogenas *Mucoris*, *Rhizopodis*, *Chlamidomucoris*, cfr. illustrationes cll. WEHMER, CHRZASZCZ, VUILLEMIN etc. in Centralbl. f. Bakt. II Abt. 1901, Revue mycolog. 1902 etc.

3. **Mucor flavus** Bain. Bull. Soc. Myc. 1903, pag. 157 (absque diagnosi). — Hypha fertili initio hyalina dein ochraceo-flava usque 8 mm. alta; sporangiis globosis griseo-cyanescentibus, membrana evanescente et collarium angustum relinquente: sporis numerosissimis ovoideis, $9-12 \times 4,2$, rarius sphaericis, $4,2 \mu$. diam. vel reniformibus; columella sphaerica dein ovoidea.

Hab. in Agaricis putrescentibus in Gallia. — Zygosporæ tandem generantur.

4. **Mucor exitiosus** Masee in Kew. Bull. Jun. 1901, p. 94-99, 1 pl. — 1682
Mycelio lanoso, niveo; hyphis sporangiferis decumbentibus racemoso-ramosis, sæpius septatis; sporangiis globosis, atris, 60-100 μ . diam.; columella globosa v. obovata; sporis hyalinis, ellipsoideis, $5-6 \times 3,5-4$; zygosporis ignotis.

Hab. parasiticus in Locustis (Acridiis?) in Africa australi. — Locustas enecat.

5. **Mucor locusticola** Lindau, Notizbl. Bot. Gart. u. Mus. Berlin Jul. 1901, n. 26, p. 119, t. 1 (absque diagnosi). — 1683
Mycelio irregulariter ramoso, filiformi, continuo, hyalino, 4-8 μ . cr.; hyphis fertilibus filiformibus, 250-300 \times 6-7, continuis; sporangiis solitarie acrogenis globosis, griseis, 15-23 μ . diam., superficie ob crystallina minutissima asperulis; columella nulla; sporis in quoque sporangio nunc numerosis, nunc paucis, ellipsoideis, subhyalinis, $4-6 \times 2,5$.

Hab. in Locustis (Acridiis?), quas necat, parasitice, nec non cultus in mediis variis saprophytice, ex Africa australi, ubi ad exterminanda perniciosissima illa insecta adhibetur. — An diversus a præcedente?

6. **Mucor fuscus** Bain. Bull. Soc. Mycol. 1903, p. 165 (absque diagnosi). — 1684
Pedicellis 1 cm. longis sub apice 1-septatis ibique iterato ramosis; sporangiis sphaericis, membrana aciculis calcareis facile dilabentibus spinulosa tectis; columella obverse conico-truncata, flavido-brunnea; sporis globosis vel ovoideis, leviter echinulatis, 7,5-12,5 μ . diam.

Hab. in excremento canis in Gallia.

7. **Mucor speciosus** Oud. Beih. Bot. Centr. 1902, p. 6. — 1685
sterilibus, repentibus, dichotome ramosis, protoplasmate granuloso farctis, hyalinis continuis; fertilibus erectis vel flexuosis, melleis, sursum sæpe cernuis v. uncinatis, 12-14 μ . cr., simplicibus v. racemoso-ramosis; sporangiis erectis v. cernuis, initio hyalinis, maturis atro-cyaneis, 90-140 μ . diam., subtilissime echinulatis, tunica obtegente hyalina v. dilutissime fuliginea, non diffuente; colu-

mella subglobosa, hyalina v. dilutissime tinctoria, diu superstita; sporis globosis v. brevis ellipticis, singulis, dilutissime fuliginosis, acervatis, obscure chalybeis v. atro-cyaneis, 2-4 μ . diam.

Hab. in gelatina ad culturas instituendas in laboratorio bacteriologico adhibita, Delphi Batavorum Hollandia.

8. **Mucor mucilaginosus** Bref. Unters. IV, pag. 58 et 184, tab. II, 1688 fig. 9-12, Fisch. Phyc. pag. 190. — Hyphis sporangiferis rectis, subsparsis, indivisis, continuis, hyalinis, superficie tota guttulis aqueis, zona infra sporangiam tantum dempta, conspersis; sporangiis globosis, majusculis, numquam flavis, tandem brunneo-nigricantibus, minute spinulosis, tunica diu permanente, columella campanulato-convexa, intus hyalina nec flava; sporis majusculis, oblongo-ovoideis, 30-33 \times 15, levibus, albo-flavidis; zygosporis ignotis.

Hab. in fimo equino in Germania. — Affinis *M. Mucedini*, sed notis allatis distinguendus.

9. **Mucor adventitius** Oud. Contrib. Fl. Myc. des Pays-Bas XVIII, 1687 1902, p. 719. — Maculis orbicularibus; hyphis repentibus ramosis, continuis, erectis 20 mm. alt., simplicibus, continuis, hyalinis; sporangiis globosis 80-95 μ . diam., initio hyalinis, dein griseolis, subtiliter echinulatis, membrana diffuente; columella initio globosa, dein ellipsoidea v. campanulata, hyalina, 40-48 \times 48-64, ad basim annulata; sporis ellipsoideis v. oblongis, 8-8,5 \times 4,5-5, levibus singulis hyalinis, acervatis griseis; zygosporis non visis.

Hab. in gelatina in loco silvatico exposita in Hollandia —

A. *M. mucilagineo* Bref. sporulis minoribus differt.

10. **Mucor geophilus** Oud. Fl. Myc. obt. par la culture sur gelatine 1688 etc. in Archives Néerlandaises des Sc. exactes et nat. 1902, p. 278. tab. v. fig. 1-5. — Cæspitibus primo niveis, postea griseolis, denique olivaceis, hyphis repentibus dichotome ramosis, continuis, dilute olivaceis, protoplasma homogæno fectis; erectis concoloribus, nunc simplicibus, tunc iterum cymoso-racemosis, ramulis vulgo paucis, 2-3, continuis; sporangiis globosis, primo lutescentibus, denique olivaceis, post diffuxum collarium relinquentibus, 50-350 μ . diam., obtusiuscule muricatis; columella exacte spherica, magna, dilutissime fuliginea; sporis pluriformibus, globosis, ellipticis, angulosis, 4,2-6,5 μ . diam., dilutissime olivaceis, levissimis; chlamydosporis in mycelii ramis intercalaribus, globosis, protoplasma granuloso fectis, 20 μ . diam., nunc solitariis, tunc iterum in series aggregatis; zygosporis, ut videtur, chlamydosporis subsimilibus, has volumine paullo superantibus (ca. 30 μ . diam.).

Hab. in gelatina pulvere terræ humosæ infecta, Bassum Hollandiæ.

11. **Mucor reticulatus** Bain. Bull. Soc. Mycol. 1903, p. 164 (absque 1639 diagnosi). — Pedicellis circ. 1 cm. longis ramosis prope apicem septatis; sporangiis sordide albis; membrana minute granulata fugacissima; columella ovoidea cylindro-conica vel panduriformi; sporis globosis hyalinis sæpe columellæ conglutinatis.

Hab. in excremento canis, felis et muris in Gallia. — Mensuræ omnes desiderantur.

12. **Mucor platensis** Speg. Rev. Arg. de Hist. Nat. p. (4). — Myce- 1690
lio albo v. vix subcinerescente late effuso, laxe gossypino-tomento-
sulo ex hyphis crebre irregulariterque ramulosis cylindricis, 12-15
µ. crassis, hyalinis, guttulis oleosis faretis efformato; ramulis spo-
rangiferis hinc inde densiuscule adsurgentibus, erectis, rectis vel
flexuosis, teretibus 5-30 mm. longis, 10-12 µ. crassis, simplicibus,
continuis hyalinis, levibus, apice non incrassatis, sporangium unicu-
sistentibus; sporangiis globosis, 80-100 µ. diam., inferne non vel
vix depressis, ex olivaceo v. fuligineo cæsiis, membrana tenuissima
fusco-violascente intus extusque spiculis crystallinis concoloribus
minutissimis acutis dense muriculata, mox evanescente vestitis;
columella ex ovato subglobosa basi late subtruncato-rotundata v.
subumbilicata, 60 × 50 ex hyalino violascente donata; sporis globo-
sis, 8-9 µ. diam, levibus, eguttulatis, hyalinis, dense conglobatis;
oosporis non visis.

Hab. in fimo vetusto, putrescente Didelphydis elongati in silva prope La Plata Argentinæ.

13. **Mucor hygrophilus** Oud. Beih. Bot. Centr. 1902, p. 6. — Hy- 1691
phis sterilibus repentibus niveis, ramosissimis, continuis; hyphis
fertilibus simplicissimis, hyalinis, continuis, ad 8 µ. cr., perfecte
cylindræis, summo tantum vix tenuioribus; sporangiis sphaericis
36-42 × 28, membrana primo hyalina, postea vix dilutissime oli-
vacea, levissima, non diffuente; columella infera ovoidea, 32 ×
24, levissima, primo hyalina, postremo vix dilutissime viridescente;
sporibus ellipticis v. ovoideis, 5-8 × 3-6 levissimis, dilutissime viren-
tibus; chlamydosporis numerosissimis, vulgo doliiformibus, diluti-
sime virescentibus, levibus, membrana minute granulosa faretis.

Hab. in aqua aquæductus urbis Enschede Hollandiæ.

14. **Mucor comatus** Bain. Bull. Soc. Myc. 1903, pag. 156, tab. VI, 1692
fig. 6-9 (absque diagnosi). — Hypha primaria apice sporangifera,
ramulis binis ascendentibus prope verticem et prope medium

aucta, $500 \approx 70$; sporangiis globosis membrana tenuiter granulata præditis, columella hemisphærica, 90-100 μ . diam, filamentis hyalinis radiantibus prædita; sporis ovoideis, $6-7 \approx 3-4,5$ ex hyalino flavidis.

Hab. in substantiis organicis? in Gallia.

15. **Mucor limpidus?** Bain. Bull. Soc. Myc. 1903, p. 162 (absque dia- 1693
gnosi). — Irregulariter et copiose ramosus; sporangii membrana sublevi; sporis ovoideis perexiguus; columella subsphærica, basi post sporangii dehiscientiam collario prædita; zygosporis majusculis, verrucoso-hirtis, verrucis rufo-ochraceis.

Hab. in substantiis organicis? in Gallia. — Mensuræ omnes desiderantur.

16. **Mucor communis** Bain. Bull. Soc. Myc. 1903, pag. 161 (absque 1694
diagnosi). — Ex albo ochraceus; sporangiis perexiguus, oligosporis, membrana levi, irregulariter dehiscente; sporis versiformibus globosis, ovoideis, polyhedricis, subhyalinis; columella cylindræa, papillata.

Hab. in substantiis organicis? in Gallia. — Zygosporæ copiosæ, scalariformiter dispositæ, ochraceæ, plano-verrucosæ. Mensuræ omnes desiderantur.

17. **Mucor vulgaris** Bain. Bull. Soc. Mycol. 1903, pag. 160 (absque 1695
diagnosi). — Minutus, maculiformis ex albo fulvus, valde ramosus; sporangiis ochraceis ob sporas; membrana hyalina; columella ovoidea vel cylindræa, papillata, dilute cyanea; sporis globosis.

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ minute, echinulatæ; zygosporæ verrucis applanatis conspersæ, facile evolvuntur. Mensuræ omnes desiderantur.

18. **Mucor vicinus** Bain. Bull. Soc. Myc. 1903, p. 159 (absque dia- 1696
gnosi). — Mycelio irregulariter ramoso, sporangiis subglobosis, dilute fulvis, tunica levi; sporis e globoso-polyhedricis, subochraceis; columella ovoidea; pedicellis æqualibus, inferne guttulis flavidis oleosis præditis.

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ adsunt et azygosporæ facile evolvuntur. Mensuræ omnes desiderantur.

19. **Mucor prolificus** Bain. Bull. Soc. Mycol. 1903, p. 163 (absque 1697
diagnosi). — Sporangii flavo-ochraceis, polysporis, membrana levi hyalina; sporis vulgo ovoideis, majusculis, flavidis; columella cylindræa, papillata, basi abrupte dilatata.

Hab. in substantiis organicis? in Gallia. — Zygosporæ serius

atro verrucoso-echinulatæ. Chlamydosporæ leves, flavidæ. Mensuræ omnes desiderantur.

20. **Mucor neglectus** Bain. Bull. Soc. Mycol. 1903, pag. 160 (absque 1698
diagnosi). — Sporangii ob sporas ovoideas flavidas ochraceis; columella ovoidea vel medio-subconstricta vel piriformi; membrana sporangii minute granulosa, dein evanescente et collarium relinquente.

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ leves et ochraceæ adsunt et azygosporæ facile evolvuntur. Affinis *M. tenui* et *M. vicino*. Mensuræ omnes desiderantur.

21. **Mucor Ramannianus** A. Möll. Zeitschr. f. Forst u. Jagdwesen 1903, 1699
Heft V-VI. — Mycelio niveo copiose ramoso, extus filiformi gemmifero; gemmis conidiomorphis; hyphis fertilibus rectis, vix 1 mm. longis, sæpius brevioribus, solitariis v. umbellato-fasciculatis, simplicibus, 10-20 μ . infra sporangium septo divisus; sporangiis cupreis, coacervatis late roseis, globosis, 20-40 μ . diam., columella globosa 7-9 μ . diam., membrana omnino fragili; sporis globoso-oblongis, 2,5 \times 1,7, hyalinis; zygosporis nullis observatis.

Hab. in pane, ubi cæspitulos depressos, roseos radiatim expansos format, ex mycorrhizis Pinorum in Bavaria et Germania. — In fimo non evolvitur.

22. **Mucor Wossnessenskii** Schostak. in Zeitschr. f. angew. Mikro- 1700
skop., 1903, p. 5. — Hyphis simplicibus v. sympodiali-ramosis 1-2 mm. alt., 100 μ . cr.; sporangiis globosis, atro-griseis; membrana fragili et collario basali præditis; columella piriformi 350 μ . longa; sporis ovoideo-oblongis, 6-8 \times 5.

Hab. in caryopsidibus Oryzæ coctis, in Russia. — Subinde sporangia sterilia manent et tunc lateraliter generant sporangio-phora sporangiis minoribus prædita.

- ACTINOMUCOR** Schostak. in Zeitschr. f. angew. Mikroskop. 1903, p. 35 (Etym. *actin* radius et *Mucor*). — Hyphæ stoloniferae, stolonibus apice inflatis et 4-5 ramos verticillatos edentibus subindeque ramos secundi ordinis proferentibus. Rami conidiophori circiter decem verticillati. Sporangia lateralia minora, altitudine sporangium centrale majus subæquantia et cingentia.

1. **Actinomucor repens** Scholastak. l. c. — Characteres generis. 1701

Hab. in substantiis organicis in Russia.

ZYGORRHYNCHUS Vuill. in Bull. Soc. Mycol. 1903, p. 116 (Etym. *zygon* jugum et *rhynchos* rostrum). — Hyphæ continuæ, ramosæ, inæquales sæpe nodosæ, immersæ, repentes vel stratum aëreum velutinum formantes. Chlamydosporæ leves, intercalares vel terminales. Pedicelli solitarii vel in systemata sympodica irregularia sporocystas typicas vel abortivas zygosporasque ferentia aggregati, apice non infundibuliformes. Sporocystæ uniformes, membrana cum basi columellæ plus minus concrecente præditæ. Sporæ numerosæ, minutæ, leves. Zygosporæ valde aculeatæ, rostratæ. Tympana insertionis subopposita, inæqualia, minus in apice rostri. Suspensores inæquales et diffformes, minor rectus et brevis, major longus, curvus apice piriformi-inflatus. Gameta valde inæqualia; zygosporæ e systemate simili sporocystarum oriuntur.

1. **Zygorrhynchus heterogamus** Vuill. l. c. *Mucor heterogamus* Vuill. — Sacc. Syll. IX, p. 336.
2. **Zygorrhynchus Moelleri** Vuill. Bull. Soc. Mycol. 1903, p. 117. — 1702
A *L. heterogamo* differt sporis ellipsoideis, $4,3 \approx 2,6$, nec globosis zygosporisque duplo triplove majoribus.

Hab. in substantiis organicis, Eberswalde Germaniæ (MOELLER).

PROABSIDIA Vuill. in Bull. Soc. Mycol. 1903, p. 116 (Etym. *pro* et *Absidia*, ob affinitatem cum hoc genere). — Hyphæ ramosæ inæquales, sæpe nodosæ. Chlamydosporæ leves, intercalares. Pedicelli solitarii ex hyphis directe nascentes, apice infundibuliformes. Sporocystæ uniformes, globulosæ, membrana levi diffuenti præditæ, collarium angustum relinquentes. Columella hemisphærica vel obconica sæpe papillata. Sporæ numerosæ minutæ leves. Zygosporæ verrucosæ. Tympana insertionis æqualia, opposita; suspensores recti infundibuliformes fulcris circinatis, tympana cingentibus præditi.

1. **Proabsidia Saccardoi** (Oud.) Vuill. loc. cit. *Mucor Saccardoi* Oud. 1703
Fl. Myc. obt. par la culture sur gelatine etc. in Archives Neerlandaises des Sc. exactes et nat. 1902, p. 278, tab. VI, fig. 1-6. — Cæspitibus fructiferis dilutissime violaceis; hyphis repentibus dichotome ramosis, continuis, liquore dilutissime violaceo repletis; erectis indivisis, altis 25 mm., nunc æqualiter, tunc iterum partim tantum coloratis, septo angusto, permanente, immutabili, 12-24 μ . infra apicem expanso præditi, singulis in sporangium unicum abeuntibus; sporangiis apophysatis itaque partem tantum expansionis sphæricæ terminalis occupantibus, columellam superam he-

misphæricam v. paullo voluminosiorem, imo semiellipticam, summo passim mucronatam occultantibus, 36-42 μ . diam., levissimis, primo dilutissime violaceis, postea griseolis, postremo fuscescentibus, tunica fluxili, inermi, hyalina, tandem collare angustum ad columellæ basim relinquentibus; columellæ tunica hyalina, liquore granuloso, vulgo guttulis farcto, repleta; sporis globosis, durante optimo vigore dilutissime violaceis, 4-7 μ . diam.; chlamydosporis in mycelii ramis intercalaribus, ellipticis, levibus, protoplasmate granuloso farctis; zygosporis globulosis, maturis 60 μ . diam., fuscis, rugoso-verruculosis, suspensoribus p. m. cyathiformibus, pedunculatis, ex margine partis anterioris dilatatae fila fusca 10-20 numero, longissima 7 μ . maxime lata, sursum clavata vel uncinata, tandemque inter se congregientia et intertexta emittentibus.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ.

PARASITELLA Bain. Bull. Soc. Mycol. Fr. 1903, pag. 153 (Etym. *parasitus*). — Sporangia solitaria perexigua horizontaliter ovoidea, applanata, pleiospora, membrana tenuiter granulosa; columella ovoidea; pedicelli sporangiferi simplices, breves, sursum attenuati, ex hyphis mycelialibus filiformibus, irregulariter ramosis et hinc inde massulis globosis vel subdigitatis præditis oriundi.

1. *Parasitella simplex* Bain. Bull. Soc. Myc. Fr. 1903, p. 153, t. VI, 1704 fig. 4-5 (absque diagnosi). — Perexigua, oculo inermi vix visibilis; mycelii tuberositatibus prædistincta; sporis ovoideis; cetera generis.

Hab. parasitica in Mucoribus quibusdam in Gallia. — Dimensiones nullæ allatæ. — Sub nom. *Mucoris parasitici* exhibuit sed non descripsit olim hanc speciem; hinc novum nomen *Parasitella parasitica* (Bain.) Syd. Ann. myc. I, p. 371 non necessarium videtur.

CIRCINELLA Van Tiegh. — Syll. VII p. 215.

1. *Circinella nigra* Bain. Bull. Soc. Myc. 1903, pag. 170, tab. VII, 1705 f. 6-9 (absque diagnosi). — Sporangii dispositis ut in *Circinella spinosa*, atro-cæruleis, globosis, 45-50 μ . diam., membrana acieulis calcareis hirsuta; sporis globosis, subcaneis, 2-5 μ . diam.; columella azureo-atra, spinulosa; hyphis 7,5 μ . diam., flavo-ochraceis.

Hab. in fimo equino exsiccato, in Gallia. — Zygosporæ leves, atro-violaceæ.

RHIZOPUS Ehrenb. — Syll. VII p. 212, XI p. 240, XIV p. 435, XVI p. 585.

1. **Rhizopus apiculatus** Mc. Alp. Fungus diseases. of Stone-fruit-trees. 1706
Melb. 1902, p. 96, tab. XXII, et XXIII fig. 62-64. — Hyphis sporangiferis erectis, generaliter 3-fasciculatis, simplicibus, castaneis, 2 mm. long. et 26 μ . crassis e stolonibus concoloribus oriundis; sporangiis globosis, tunica levi, fuligineis, 150-160 μ . diam.; sporis pallide fuligineis, subglobosis vel ovalibus, levibus, granulosis, 7-8 μ . diam. vel 8-11 \times 6,5-7,5.

Hab. in foliis emortuis Pruni domesticæ et Pruni Armeniacæ, Ardmona, Victoria Australiæ.

2. **Rhizopus umbellatus** Annie L. Smith, in Journ. R. Micr. Soc. 1901. 1707
pag. 618, tab. XIII, f. 5. — Hyphis e stolonibus exsurgentibus 8-10 μ . diam., hyalinis, sporangiferis, 500 μ . longis, superne umbellato-ramosis, hyalinis; ramis fere semper quaternis, interdum septatis, in sporangia subglobosa 50-60 μ . diam. terminantibus, hyalinis; columella globosa 30 μ . diam.; sporis oblongis, utrinque attenuatis 5 \times 2, hyalinis.

Hab. in seminibus Trifolii rubri germinantibus in Britannia. 1708

3. **Rhizopus schizans** Mc. Alp. Fungus diseases. Stone-fruit-trees, Melb. 1902, p. 84, t. XV, f. 1-2. — Hyphis sterilibus repentibus, mycelia intricata efformantibus, tenuibus, hyalinis, septatis, ramosis; hyphis fertilibus fasciculatis, simplicibus, raro ramosis et 1-septatis, luteo brunneo-pallidis, circ. 1 mm. long. et 17 μ . cr. e stolonibus concoloribus oriundis; sporangiis globosis, nigro-brunneis, tunica levi, 150 μ . diam., columella elliptica, 70 \approx 52; sporis in cumulo nigro-brunneis, separatim pallidis, ellipticis v. ovalibus, 7-7,5 \times 5-5,5.

Hab. in fructibus ruptis Pruni Persicæ, Ardmona, Victoria Australiæ.

4. **Rhizopus equinus** Cost. et Lucet in Bull. Soc. Myc. de France, 1903, 1709
p. 211, tab. IX et X. — Pedicellis initio subsolitariis, plerumque rhizoidibus carentibus, rectis curvulisve, tandem fasciculatis et rhizoidibus præditis, tunica pallide ochracea; columella pallida, globoso-emisphærica; sporis globosis interdum subangulosis, levibus 4 μ . diam.

Hab. in corpore Equi Caballi in Gallia. — Species Cuniculo pathogena. Adsunt chlamydosporæ. Confer fusiorem descriptionem et Conspectum specierum l. c.

5. **Rhizopus tonkinensis** Vuill. Rev. Mycol. 1902, pag. 53, tab. 225 1710
(absque diagnosi). — Hyphis sterilibus repentibus hinc inde rhi-

zoidibus brevibus flexuosis præditis; hyphis fertilibus assurgentibus apice infundibulariter dilatatis et cum columella globosa contiguis; sporangiis globosis, 75-100 μ . diam.; sporis sphæroideo-ellipsoideis, uno apice acutiusculis (avellaniformibus), $8 \times 5,5-6,5$, exosporio nigro-cyaneo, eximie striato.

Hab. in caryopsidibus Oryzæ fermentescentibus (*ragi*) ex Tonkin Indosinarum.

6. **Rhizopus japonicus** Vuillemin. Revue mycol. 1902; p. 49, tab. 224, 1711 f. 11-14 (absque diagnosi). — Hyphis sterilibus hinc inde rhizoidibus copiose ramulosis præditis ibique fasciculos hypharum fertilium assurgentium gerentibus; hyphis fertilibus apice infundibulariter dilatatis et cum columella globulosa contiguis; sporangiis sphæroideis 160-215 μ . diam.; sporis sphæroideo-ellipsoideis, uno apice acutioribus (avellaniformibus), $9-12 \times 6-7$, exosporio nigro-cyaneo distincte striato.

Hab. in caryopsidibus Oryzæ fermentescentibus (*ragi*) e Japonia.

7. **Rhizopus Cambodja** (Chrzaszcz) Vuill. Rev. Myc. 1902, p. 48, *Mucor* 1712 *Cambodja* Chrzaszcz in Centralbl. f. Bakter. II Abt. 1901, p. 326-338, 2 tab. — Mycelio albo dein griseo-cærulescente, 10-20 mm. longo, stolonibus e mycelio surgentibus, 3-14 μ . diam. et 120 μ . usque ad 8 mm. longi, contentu subflavido; rhizinis vulgo parce ramosis hyalinis dein brunneis, 3-7 μ . crass. subinde septatis; hyphis fertilibus, 100-1000 \times 7,2-14, rectis vel curvis, brunneis, vulgo simplicibus rarius ramulosis. sporangiis globosis, 50-100 μ . diam. griseis vel brunneolis, maturis cæruleo-nigris, membrana valde fragili, columella 22-44 \times 25-44 hemisphærica vel globosa; membrana levi brunnea; sporis cærulescentibus, levibus, oblongis vel globoso-angulosis, $4,5-7,5 \times 3,7-5,2$; zygosporis nullis visis.

Hab. in fermento oryzino quodam sinensi e Cambodja Asiæ.

8. **Rhizopus sinensis** Saito in Centralbl. f. Bakt. II Abth., XIII 1713 (1904), p. 153, t. I. — Hyphis sterilibus repentibus hyalinis hinc inde rhizinas plus minus longas subinde verruciformes fasciculatas v. sparsas emittentibus, superne hyphas sporangiferas 200-250 μ . altas edentibus; hyphis fertilibus filiformibus griseis simplicibus, interdum sursum bifidis subverticillato-ramosis, apice parum dilatatis; sporangiis globosis, 60-80 μ . diam., nigricantibus, columella varia, plerumque ellipsoidea, 30-40 μ . cr.; sporis e sphærico ellipsoideis levibus intus guttulato-granulosis, 10×8 v. $5-7$ μ . diam., griseo-nigricantibus.

Hab. in pane triticeo ex urbe Shao-Hing in prov. Che-Kiang Sinarum. — Caespituli griseo-nigricantes subinde 2-3 cm. alt. Zygosporæ nullæ observatæ.

9. **Rhizopus Tritici** Saito in Centralbl. f. Bakt. II Abth. XIII (1904) 1714 p. 157, t. II. — Hyphis sterilibus repentibus, filiformibus, parce ramosis, hinc inde rhizinas fasciculatas, simplices vel apice varie ramulosas emittentibus, superne hyphas fertiles edentibus; hyphis fertilibus, 500-1000 \times 10, filiformibus, brunneis, rectis vel curvulis, simplicibus vel sursum iterato-ramosis, apice vix dilatatis; sporangiis globosis initio niveis, dein atro-brunneis, 85-200 μ . diam., membrana fragili crystallis perexiguis acicularibus conspersa; columella 9-11 \times 7-8, sphaerico-ellipsoidea; sporis globoso-ovoides, æqualibus 5-6 μ . diam., coacervatis nigro-griseis vel atro-brunneis, membrana crassiuscula, longitudinaliter striata; zygosporis nullis visis.

Hab. in pane triticeo ex urbe Shao-Hing, in prov. Che-Kiang Sinarum. — Caespituli nivei dein griseo-nigricantes, 2-5 cm. alt.

TIEGHEMELLA Berl. et De Toni — Syll. VII p. 215.

1. **Tieghemella Orchidis** Vuill. in Bull. Soc. Mycol. 1903, pag. 122. 1715 tab. 5. — Hypha primaria seu stolone 0,6-10 mm. longo, rhizoidibus basi prædita; ramis fertilibus simplicibus v. ramulo obliquo sursum auctis, 500-700 \times 7-10, apice 1-septatis, sursum infundibuliformibus, sporocystibus cum infundibulo continuis, 40 \times 32, membrana granulis perexiguis incrustata, collarium angustum, fimbriatum, basi relinquente; sporis sphaericis, 2-5 \times 3-5 μ . diam. brunneolis; columella conica apice papillata.

Hab. in radicibus Orchidis masculæ diu in vasculo asservatis, ex silvis Nancy Galliæ. — Huic generi adscribenda est *Tieghemella dubia* (Bainier) Vuill. l. c. Absidia dubia Bainier — Syll. XI, p. 240 — quam nunc cl. Bainier in gen. nov. *Pseudoabsidiam* erexit. Cfr. Bull. Soc. mycol. 1903, p. 153, t. VII.

ABSIDIA Van Tiegh. -- Syll. VII p. 214, IX p. 337, XI p. 240, XIV p. 435, XVI p. 386.

1. **Absidia scabra** Cocconi, Ricerche int. una nuova Mucorinea, in 1716 Memor. R. Accad. Sc. Bologna ser. V, Tom. VIII, pag. 80 con tav. -- Hyphis sterilibus repentibus in arcus fere semicirculares æquales plurimos elevatis, continuis, rhizinis fasciculatis basi au-

etis; ramis sporangiferis e medio arcuum 3-5 assurgentibus, simplicibus; sporangiis ovoideis v. piriformibus, membrana levi; columella conoidea; sporis globulosis, hyalinis, 4,5-6 μ . diam, membrana spinulosa; zygosporis breve ovoideis v. subsphaeroideis, 78-86 μ . diam, nigricantibus, filamentis uncinatis obvolutis et germinando hypham sporangiferam simplicem ramosamve generantibus.

Hab. in fimo equino, Bologna Ital. bor. — *Azygosporæ* notæ.

SPORODINIA Link. — Syll. VII p. 206.

1. *Sporodinia argentinensis* Speg. Myc. argent. ser. II, 1902, p. 67. 1717
— *Cæspitulis* tenerrimis, fugacissimis subcinerescens, 5-10 mm. alt.; ramis erectis, laxè articulatis, cylindraceis, internodiis gracilibus, 500-1000 \times 10-12, hyalinis; sporangiis globosis chlorinis, 30-50 μ . diam., mox diffluentibus, columellam globosam 15-25 μ . d., liberantibus; sporis levibus, utrinque obtusis, 4-6 \times 3-4, tenuissime tunicatis, eguttulatis, hyalinis.

Hab. in lignis quibusdam diu in receptaculo humido servatis, La Plata, in Argentina.

HELICOSTYLUM Corda — Syll. VII p. 209, XIV p. 434.

1. *Helicostylum intermedium* Morini, Rendic. d. R. Accad. d. Scienze 1718
Bologna, 1902, p. 81-88 c. tabula (absque diagnosi). — *Cæspitulosum*, albidum; *cæspitulis* $\frac{1}{3}$ mm. diam. ex hyphis laxis compositis; hypha primaria 0,7-1,3 mm. alta, 22-28 μ . cr., erecta, continua supra medium ramosa, parte suprema hyphæ ramorumque attenuata et sterili; ramis prope medium ramulosis, ramulis arcte spiraliter contortis, apice sporangiophoris; sporangiis globosis, columella destitutis, 26-30 μ . diam., hyalinis, spinulis calcareis perexiguis conspersis; sporis paucis (5-18) ovoideis, levibus, e flavido hyalinis, ex icone circ. 8-9 \times 6-6,5.

Hab. in fimo bovino, Bologna Ital. bor., socio *Pilobolo*.

PILOBOLUS Tode — Syll. VII p. 184.

1. *Pilobolus Morinii* Sacc. *Piloboli* sp. Mor. in Mem. R. Accad. delle Scienze di Bologna ser. V, tom. VIII, 1899-1900, p. 85. c. tab. 1719
— Videtur affinis *P. nano* van Tiegh., a quo differt hyphis sporangiophoris basi non 2-5 coalitis; sporis globosis minutis 4,5-6 μ . diam., aurantiacis, nec incoloribus.

Hab. in stercore humano sicco, Montese in agro Bononiensi.

— Totus fungillus 0,6-0,8 mm. alt. Sporangia nigra; hypha sporangiophora alba cum vesica sup. alba.

2. *Pilobolus pullus* Massee in Kew Bull. 1901, p. 160. — Sporangiiis 1720
hemisphaerico-depressis, atris, glabris 250-300 μ . latis; columella
convexa, saepe medio constricta; sporis ellipticis, episporio auran-
tiaco, 10-12 \approx 8-9; stipite albido, apice ventricosso-inflato, 1 mil-
lim. alto.

Hab. in fimo vaccino, in Tasmania (RODWAY). — *P. Kleinii*
van Tiegh. affinis.

MORTIERELLA Coemans. — Syll. VII p. 220, IX p. 337, XI p. 240,
XVI p. 387.

1. *Mortierella humicola* Oud. Fl. Myc. obt. par la culture sur gela- 1721
tine etc. in Archives Neerlandaises des Sciences exactes et natur.
1902, pag. 276, tab. I, fig. 1-3. — Cæspitibus orbicularibus, non
lamellosis, constanter niveis; hyphis repentibus dichotome ramo-
sis, hyalinis, continuis, passim nodulosis, protoplasmate pauci-
granuloso repletis; erectis perfecte cylindræis, neque deorsum
crassioribus, nec sursum attenuatis, protoplasmate grosse vacuo-
loso faretis, 110-150 μ . altis, singulis in sporangium unicum abe-
untibus; sporangiis globosis, 20 μ . diam., levissimis, membrana
hyalina; sporis perfecte globosis, levissimis, 3 μ . diam., hyalinis,
absque omni nuclei v. guttulæ vestigio.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum
Hollandiæ.

2. *Mortierella isabellina* Oud. Fl. Myc. obt. par la culture sur gela- 1722
tine etc. in Archives Neerlandaises des Sc. exactes et natur. 1902,
p. 276, tab. II, f. 1-6. — Cæspitibus zonatis, primo niveis, mox
autem læte griseis, denique isabellinis tactuque justo durioribus;
hyphis repentibus dichotome ramosis, continuis, protoplasmate
æquali faretis; erectis cylindræis, sursum vix tenuioribus, conti-
nuis, 120-200 μ . altis, hyalinis, in sporangium unicum abeuntibus;
sporangiis globosis, 12-25 μ . diam., levissimis, membrana hyalina;
sporibus globosis, levissimis, singulis fere hyalinis, aggregatis, dilu-
tissime ochroleucis, 2-5 μ . diam.; chlamydo sporis in gelatina sub-
mersis, sphaericis v. ellipticis, levibus, hyalinis, membrana tenui
instructis.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum
Hollandiæ. — *A. M. simplici* Van Tiegh. et Le Mon., colore cæ-

spitum optime vigentium, colore et dimensione minore sporarum differt.

3. *Mortierella pusilla* Oud. Fl. Myc. obt. par la culture sur gela- 1723
tine etc. in Archives Néerlandaises des Sc. exactes et natur.
1902, p. 277, tab. III, fig. 1-2. — Cæspitibus orbicularibus, con-
stanter niveis, lanosis, e laminis paucis superpositis, repandis vel
lobatis et quoad amplitudinem sursum diminuentibus compositis;
hyphis repentibus, hyalinis, 2,5-10 μ . cr., dichotome ramosis, pro-
toplasmate subtilissime granuloso dense repletis; erectis 4-6 μ . cr.,
deorsum paullo crassioribus, sursum lenissime attenuatis, 130-170
 μ . altis, sporangio unico terminatis; sporangiis globosis, levissimis,
24-28 μ . diam., membrana hyalina; sporis perfecte globosis, le-
vissimis, hyalinis, 2-2,5 μ . diam. absque omni nuclei aut vesiculæ
vestigio.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum
Hollandiæ. — A *M. isabellina* Oud. differt cæspitum fabrica la-
mellosa et colore constanter niveo; hyphis repentibus protopla-
smate dense et minute granuloso repletis; hyphis erectis sursum
attenuatis, deorsum paullo incrassatis; sporis hyalinis.

4. *Mortierella subtilissima* Oud. Fl. Myc. obt. par la culture sur ge- 1724
latine etc. in Archives Néerlandaises des Sc. exactes et nat. 1902,
p. 277, tab. IV, fig. 1-3. — Cæspitibus *M. pusillæ* simillimis; hy-
phis repentibus hyalinis, continuis, ramosis, 3-5 μ . crass., proto-
plasmate homogæneo fartis; erectis strictis, continuis, hyalinis,
130-200 μ . altis, 2,5-3,5 μ . cr., simplicibus, cylindricis, deorsum
non incrassatis, sursum vix attenuatis, singulis sporangio unico
terminatis; sporangiis globosis, levissimis, 20-26 μ . diam., mem-
brana hyalina; sporis levissimis, hyalinis, globosis, 2,3-4,7 μ . d.,
cum ellipticis 5-6 μ 4-5 commixtis.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum
Hollandiæ. — A *M. pusilla* Oud. differt hyphis repentibus pro-
toplasmate homogæneo nec granuloso fartis; erectis tenuioribus
(2,3-3,5 μ . contra 5), per totam longitudinem fere æque crassis;
sporangiis minoribus (20-26 μ . contra 24-28); sporis globosis
minoribus cum aliis, ellipticis, majoribus commixtis, neque omnibus
æqualibus. An forma *M. pusillæ*?

CHOANOPHORA Cunn. — Syll. IX p. 339, XIV p. 432, XVI p. 383.

1. *Choanophora Cucurbitarum* (B. et R.) Thaxter, Rhodora 1903, p. 99,

tab. XLVI. Ita vocandus est *Rhopalomyces Cucurbitarum* B. et R. — Syll. IV, p. 50 — teste cl. Thaxter.

CUNNINGHAMELLA Matr. in Ann. Mycol. 1903, pag. 46, absque diagnosi (Etym. a cl. botanico britannico-indico D. D. Cunningham). — Mycelium continuum, ceterum genus omnino mucedineum et zygosporis carens. Hyphæ fertiles superne inflatæ in vesiculam ubique sterigmatophoram. Sporæ (conidia?) globulosæ, distincte spinulosæ in apice sterigmatum solitarie acrogenæ. — *Edocephalo* et *Choanophoræ* affinis *).

1. **Cunninghamella africana** Matr. in Ann. Mycol. 1903, pag. 47. — 1725
Omnino alba; mycelio et hyphis continuis; hyphis sporiferis apice capitato-inflatis; capitulis usque 100 μ . diam., globulosis; conidiis globoso-ellipsoideis, 18 \approx 12, pedicellatis, dense muricato-spinulosis.

Hab. in stercore Camelorum in Soudan gallico Africæ, nec non culta in laboratorio. — Diagnosis systematica, more solito biologorum, omnino desideratur. Teste cl. R. Thaxter in *Rhodora* 1903, p. 98, huc spectat *Edocephalum echinulatum* Thaxter 1891 Syll., quod ergo vocandum est *Cunning. echinulata* Thaxter.

PIPTOCEPHALIS De Bary — Syll. VII p. 225, IX p. 338, XI p. 241, XVI p. 387.

1. **Piptocephalis Le-Monnieriana** Vuill. Les Céphalidées (in Bull. Soc. 1726
Sc. Nancy, 1902), p. 28, pl. IV, f. 57-74 (absque diagnosi). — Filamentis fertilibus rhizoidibus nullis matrici hærentibus, erectis, 500 μ . alt., 9 μ . cr. sursum in corymbum umbellatum desinentibus, continuis; corymbo fructifero ex albo-castaneo, e ramis dichotomicis patulis, apice inflato sporigeris ibique 6,5 μ . cr., tuberculatis; sporocystibus radiato-capitatis, breve cylindraceis, 7-8 \approx 1, 7-2; sporis in quaque sporocysti binis, ellipsoideis.

Hab. in cæspitibus Mucoris fragilis pr. Epinal Galliæ.

SYNCEPHALIS Van Tiegh. et Le Monn. — Syll. XIV p. 435.

1. **Syncephalis aurantiaca** Vuill. Les Céphalidées, Nancy 1902 (in 1727

*) Teste Auctore, *Edocephalum albidum* Sacc. ad hoc genus quoque pertinet (*Cunninghamella alb. du* (Sacc.) Matr. Et *Gonatobotrys microspora* Riv., sec. eundem Matruchot ad genus affine referenda esset nomine *Plachtflorella microspora* (Riv.) Matr. Sed cum in duobus his fungorum generibus sporangia non distincta sint, res videtur ulterius inquirenda.

Bull. mens. Soc. Scienc. Nancy 1902) p. 17 pl. I, f. 13-21, pl. II, fig. 36-43 (absque diagnosi). — *Amœne aurantiaca*, effusa; filamentis sterilibus, tenuissimis, anastomotico-ramosis, hinc inde subtriangulariter inflatis, continuis; fertilibus erectis basi rhizoidibus inæqualibus cinctis ibique parce septulatis, tereti-obclavatis, 200-270 μ . long. apice inflatulis 30 μ . cr.; sporocystibus fasciculato-capitatis, cylindraceis, 60 μ . long., 3-4-articulatis ex articulo sterili versiformi oriundis; sporis tereti-ellipsoideis, utrinque rotundatis, 6-9 \approx 3,5-4.

Hab. in excremento Vulpis, Malzéville Galliæ.

2. *Syncephalis adunca* Vuill. Ann. Mycol. 1903, p. 423, tab. VIII, 1728
f. 11-19 (absque diagnosi). — Tota 95-125 μ . alta; hypha verticali, cylindrica, 6-6,5 μ . cr., sursum arcte recurvata et incrassata ibique 8-20 μ . lata; vesicula apicali hemisphærica, 23-27 μ . diam.; baculis sporogenis supra vesiculam parallele stipatis, 4-sporis; sporis oblongo-cylindraceis, 3,5 μ . long., supreme cum indusio terminali 7 μ . long.

Hab. in superficie aquæ cum fimo equino, sociis aliis Mucoraceis, culta in laboratorio botanico, Nancy Galliæ. — Affinis *S. curvate*.

3. *Syncephalis glabra* Morini, Contr. gen. Synceph. in Mem. R. Acad. Bologna Ser. V, t. IX, pag. 233 tab. — 1729
Flavo-aurantiaca; hyphis conidiophoris levissimis simplicibus basi incrassatis et rhizinis fasciculatis præditis, continuis, 60-85 μ . longis, apice in vesiculam globosam inflatis, crystalloidibus carentibus, serius incurvato-nutantibus; basidiis e vesicula orientibus, brevibus, catenulam unicam conidiorum globosorum levium gerentibus; zygosporis globulosis, levibus, membrana crassa, nigricante.

Hab. in Boletto eduli, *B. Satana* etc. fere putrescentibus pr. Bologna Ital. bor. — Mensuræ sporarum et zygosporarum omnes desiderantur.

GLOMERULA Bainier in Bull. Soc. Mycol. 1903, p. 154 (Etym. *glomus*). — Hyphæ fertiles vertice sporangiferae, apicem versus ramulis 3-8-verticillatis breve ramulosis apice quoque sporangiferis præditæ Sporangia sphæroidea, hyalina dein ochracea, membrana spinulis calcareis dense conspersa, maturitate diffuente et collarium angustum relinquente; sporæ globosæ leves; columella varia hemisphærica, cylindro-conica vel ovoidea.

1. **Glomerula repens** Bainier in Bull. Soc. Mycol. 1903, p. 154, t. VI, 1730 fig. 1-3 (absque diagnosi). — Characteres generis.

Hab. in substantiis putrescentibus in Gallia. — Dimensiones nullæ allatæ.

SPINALIA Vuillemin in Bull. Soc. Myc. de France 1904, pag. 26-33 (Etym. ab urbe Epinal, ubi fungus primitus lectus). — Hyphæ continuæ, (subinde hyphæ exhaustæ septatæ ad cicatrices); hypha fertilis longissima, repens v. scandens, in pedicellum erecta; rami laterales rariores et serotini pedicellos secundarios edentes. Vesicula apicalis globosa, basidiis sporomorphis radiantibus obsita. Sporangia (conidia?) solitaria in apice basidiorum, ellipsoidea, continua. — Membrana sporangiis nulla manifesta, hinc technice fungillus videtur potius mucedineus, forte *Edocephalo* affinis.

1. **Spinalia radians** Vuillemin, l. c. p. 32, tab. II. — Characteres 1731 generis. Fungus totus flavicans, 2-2,5 mm. long.; vesicula sporifera globosa 4-30 μ . diam.; basidiis sporangiisque (?) subisomorphis oblongo-ellipsoideis, utrinque rotundatis, 4,5-6,7 v. 1,7-3, plasmate granuloso faretis.

Hab. in fluxu trunci Betulæ, sociis *Mucore fragili* et *Piptocephali Le-Monnieriana*, Epinal Galliæ.

Fam. 2. Entomophthoraceæ Now.

ENTOMOPHTHORA Fres. — Syll. VII p. 282, IX p. 351, XIV p. 437, XVI p. 388.

1. **Entomophthora Lauxaniæ** Bubák, Hedw. 1903, p. (100). — Sporis 1732 perdurantibus in tota cavitate corporis generatis; mycelio brevi sacciformi, contorto, partim vesiculoso, continuo v. hinc inde septato, 7-20 μ . cr., hyalino, copiose guttulado; sporis perdurantibus (azygosporis) globosis, in mycelio acro-pleurogenis, 25-50 μ . diam., dilute flavidis, exosporio inæqualiter vittato-verruculoso, endosporio hyalino, guttula centrali majuscula, sporæ diametrum dimidium et ultra superante.

Hab. in musca *Lauxania ænea* sub foliis *Crepidis paludosæ* et *Spirææ opulifoliæ* in Bohemia. — Conidia nondum cognita. Exosporium jodo dilute brunneum, endosporium castaneum fit.

2. *Entomophthora Pooreana* A. L. Smith in Trans. Brith. Myc. Soc. 1733 1900, p. 150. — Hyphis copiosis, intertextis, in processus breves partitis, 5 μ . cr. v. amplius, septatis; sporis perdurantibus in hyphis anastomosantibus intercalari modo formatis, subglobosis, 25-40 μ . diam., membrana crassa, contentu granuloso.

Hab. in cuniculo putri exhumato, Isleworth Britanniae.

3. *Entomophthora dissolvens* Vosseler, Ueber einige Insectenpilze 1734 (Jahreshefte des Vereins für Vaterländ. Naturkunde in Württemberg, 1902, p. 380-388, tab. VIII, f. 5-7 (absque diagnosi). — Mycelio filiformi, flavo; sporis perdurantibus in latere hypharum septatarum mycelii evolutis, globosis, primo pallidis dein atro-brunneis, 35-40 μ . diam., episporio ca. 2 μ . crasso, subverrucoso; basidiis non visis.

Hab. in chrysalide *Cerastis? satellitiæ*, Teuerbacher Heide pr. Stuttgart Germaniæ.

*Fam. 3. Chytridiaceæ DE BARY et WOR. *).*

OLPIDIUM A. Braun. — Syll. VII p. 310, IX p. 361, XI p. 246, XIV p. 438, XVI p. 389.

1. *Olpidium intermedium* Costantineanu, Rev. gén. de Bot. 1901, 1735 f. XIII, p. 71, fig. 1. — Zoosporangiis 5-20 in singulo ovo, congestis, sphaericis vel suboblongis, 20-30 μ . diam. vel 30 \times 33, in colum longum 108-114 \times 6-8 desinentibus; zoosporis non visis.

Hab. in ovis Rotiferorum, Jassy in Romania.

OLPIDIOPSIS Cornu — Syll. VII p. 299, IX p. 362, XI pag. 247, XIV p. 439.

1. *Olpidiopsis? irregularis* Costantineanu, Contrib. Mycol. Roumanie, 1736 p. 5, f. 2-3 (in Rev. génér. Bot. 1901). — Zoosporangiis in filamentis parum dilatatis *Saprolegniæ* ortis, irregulariter oblongis sinuosisque, orificio minuto pertusis; plasmate granuloso dein in zoosporas globulosas, 4,5-5 μ . diam. biciliatas abeunte.

Hab. in filamentis myceliaribus *Saprolegniæ* sp. Jassy et Cristesti Romaniae. — Dubia species ex ipso auctore.

*) Cfr. Ludi Rud. Beiträge zur Kennt. der Chytridiaceen. Dresd. 1901 (Hedwigia).

RHIZOPHIDIUM Schenk — Syll. VII p. 298, IX p. 362, XI p. 248, XIV p. 448, XVI p. 390.

1. *Rhizophidium fungicolum* A. Zimm. in Centralbl. f. Bakter. 1902, 1737 VIII, p. 149, fig. 2. — Sporangii numerosis in mycelio *Glæosporii* ad fructum *Theobromæ* evolutis, obpiriformibus, 40 ≈ 30-40, apice conspicue papillatis; zoosporis globulosis, 4 μ . diam., uniciliatis, 2-3, oleoso-guttulatis ex sporangii papilla exeuntibus.

Hab. in mycelio *Glæosporii* ad fructum *Theobromæ* Cacao in Java.

2. *Rhizophidium Costantineani* Sacc., *R. Vaucherix* Cost. Rev. gén. 1738 Bot. 1901 et Rev. Mycol. 1903, p. 38, nec De Wild. 1900. — Syll. XVI, p. 390. — Mycelio intramatrici, tenui, ramoso; zoosporangiiis sparsis v. aggregatis, sessilibus, sphaericis v. subsphaericis, minutis, 6-8 μ . diam.; zoosporis paucis (4-6), globulosis 1-guttulatis, 3,5 μ . diam., 1-ciliatis.

Hab. ad filamenta *Vaucherix*, Jassy in Romania. — Ab homonyma specie (*Rizoph. Vaucherix* De Wild.) zoosporangiiis multo minoribus etc. mox distinguenda.

HARPOCHYTRIUM Lagerh. — Syll. XI p. 249.

1. *Harpochytrium Hedenii* Wille in Petermann's Mitteil. Erg. Heft 1739 p. 131, p. 371, 1900: cfr. Atkinson in Journ. of Mycol. 1904, vol. X, pag. 7, tab. 72, fig. 1-19, *Rhabdium acutum* Dang. Ann. Mycol. 1903, p. 61-64 (1903), *Fulminaria Hedenii* Wille, Nyt Mag. f. Naturvidenskab. 41, p. 175 (1903). — Totum 80-180 ≈ 4-10, fusiforme mox fortiter curvatum, sessile v. subsessile; basi (haustorio) subdilata, teste Dang.; zoosporis plerumque 1-seriatis, in formis majoribus 2-3-seriatis, globosis, majusculis, 4-6 μ . diam., plerumque 16, teste Dang.

Hab. in filamentis *Spirogyræ* et *Ædogonii* in Gallia, in *Spirogyris* quibusd., raro in *Zygnemate* in Amer. bor., in *Zygnemate* et *Spirogyra* in Tibet Asiae et in *Zygnemate* in Patagonia Amer. merid.

2. *Harpochytrium Hyalothecæ* Lagh. (1890) — Syll. XI, p. 249 absque 1740 diagnosi: cfr. Atkinson in Journ. of Mycol. 1904, vol. X, pag. 7, tab. 72, fig. 20-26, *Harpochytr. Hyalothecæ* Schroet. in Rabh. Krypt. Fl. 4, p. 114 (1892), *Fulminaria mucophila* Gobi Script. Bot. Fasc. 15, p. 283-292 (1899), *Fulmin. mucophila* Wille, Nyt. Mag. f. Naturvidenskab. 41, pag. 175 (1903). — Totum 20-60 ≈ 1,5-2, basi filamentum longissimo matriçi insertum, fusiforme curvu-

lum, sursum acutatum, intus granulosum; zoosporis uniseriatis minutis.

Hab. in Hyalotheca dissilienti in Finlandia, Suecia et in Amer. boreali et in Sphæromate vertebrato, Cosmo-cladio spec., Dictyosphærio spec. in Finlandia.

3. **Harpochytrium intermedium** Atkinson in Ann. Mycol. 1903, p. 500, 1741
t. X, fig. 22-23 et in Journ. of Mycol. 1904, vol. X, pag. 3. —
Totum 40-70 × 3-4, anguste fusoideum, rectum v. curvulum, sessile; zoosporis uniseriatis, minutis.

Hab. in Conferva utriculosa, Cambridge, Massach. in Amer. bor. (Dr. THAXTER).

SYNCHYTRIUM De Bary — Syll. VII p. 288, IX p. 357, XI p. 247, XIV p. 441, XVI p. 390.

1. **Synchytrium** (Leucochytrium) **montanum** Zopf in Zahlbruckn. 1742
Sched. ad Crypt. exsicc. Cent. IX, p. 358, n. 840. — Maculas atro-violaceas usque violaceo-brunneas leviter elevatas formans; sporis perdurantibus singulis v. bi-quaternis in quaque cellula epidermica, ovoideis v. piriformibus, usque 176 × 154; contentu omnino hyalino, oleoso; membrana crassa, solida, hyalina, exosporio crasso, levi, endosporio quoque crasso, hyalino.

Hab. in foliis, calycibus, rarius caulibus Brunellæ vulgaris in Tiroliae pluribus locis montanis, in Salzburg et Schwarzwald montibus. — In *Brunella grandiflora* numquam lecta species.

CHYTRIDIUM A. Braun — Syll. VII p. 304, IX p. 358, XI p. 250, XIV p. 446.

1. **Chytridium gibbosum** Scherffel in Hedw. 1902, p. (105). — Zoo. 1743
sporangii epiphyticis, utriculiformibus, gibbosis, perpendicularibus vel obliquis vel decumbentibus, operculo convexulo, 4 µ. diam., dehiscentibus; vesicula subsporangiali, endophytica, plerumque globosa, ex qua rhizoides oriuntur; zoosporis uniciliatis, oscillantibus, typice chytridiaceis; sporis perdurantibus ignotis.

Hab. in Cladophora, in horto botanico Budapest Hungarie.

PHYSODERMA Wallr. — Syll. VII p. 317, IX p. 363, XI p. 250, XIV p. 447.

1. **Physoderma Crepidis** Rostr. Islands Svampe in Bot. Tidsskrif. 1744
Copenhagen 1903, vol. 25, pag. 286. — Maculis pustuliformibus, rotundatis, granulatis, 0,5-1 mm. diam.; sporis irregulariter glo-

bosis, 40-50 μ . diam.; episporio crasso, dilute flavescente, circ. 5 μ . crasso.

Hab. in foliis *Crepidis paludosæ* in Dania.

2. **Physoderma Debeauxii** Bubák, Ann. Mycol. 1903, p. 255, *Enty-* 1745
loma Debeauxii Bubák olim. — Maculis elliptico-oblongis 1-3 cm. long., 1-2 cm. lat., flavidis, subinde confluyendo majoribus; soris in quaque macula 1-4 ellipsoideis, 5-8 \times 3-5 mm. subinde amplioribus; sporis ovoideis, 16-33 μ . cr., paucis (ad summum 5) in cellulis non ampliatis mesophylli nidulantibus, hic convexis, hinc plano-umbilicatis, mycelio nullo observato; exosporio tenui castaneo, minute verruculoso; endosporio duplo-triplove crassiore hyalino; contentu oleoso hyalino-flavidulo.

Hab. in foliis vivis *Scillæ maritimæ* prope Oran Algeriæ 1882 (DEBEAUX).

CLADOCHYTRIUM Now. — Syll. VII p. 295, XI p. 250, XIV p. 448, XVI p. 393.

1. **Cladochytrium Brevierei** Har. et Pat. Bull. Soc. Mycol. 1904, p. 61. 1746
 — Sporis perdurantibus hemisphæricis, planis vel concavis, 27-40 \times 24, in tuberculis vix 0,5 mm. diam., subglobosis, sparsis vel dense gregariis nidulantibus; episporio crasso, levi, brunneo.

Hab. in caulibus et foliis *Euphrasiæ* spec., prope Arlanc, in Arvernia Galliæ. — *Clad. Kriegeriano* valde affine, sed sporis angustioribus primo obtutu distinctum.

NOWAKOWSKIELLA Schröt. in Engl. Pflanzenfam. Pilze I, p. 80 et 82, fig. 64 (Etym. a cl. NOWAKOWSKI). — Mycelium pluries ramosum, hinc inde inflatum. Sporangia globosa v. ellipsoidea, operculo dehiscencia. Zoospore globosæ v. ellipsoideæ, 1-ciliatæ.

1. **Nowakowskiella** (Now.) Schröt. l. c. *Cladochytrium elegans* Now. — Syll. VII, p. 296.
 2. **Nowakowskiella endogena** Costantineanu, Rev. gén. Bot. 1901 p. 384 1747
 cum ic. et Rev. Mycol. 1903, p. 38, t. 229, f. 10-20. — Mycelio intermatricali, ramoso; zoosporangiis terminalibus piriformibus, collo brevi operculato munitis, 1-2 in quaque cellula matricis; zoosporis sphaericis, ratione majusculis 7 μ . cr. 1-ciliatis, excentrice l-guttatis, in singulo sporangio parum numerosis.

Hab. intra folia putrescentia et aqua immersa *Alismatis Plantaginis*, Jassy in Romania. — Species inter *Nowakowskiellam* et *Cladochytrium* media.

UROPHLYCTIS Schroet. — Syll. VII, p. 303.

1. **Urophlyctis Alfalfæ** (Lagerh.) P. Magnus in Bericht. Deutsch. Bot. Gesell. 1902, p. 291, tab. XV (absque diagnosi!) *Cladochytrium Alfalfæ* Lag. in Bull. Herb. Boiss. vol. III (nomen). — Præcipue structura et forma gallæ, quam generat, a speciebus affinis diversa.

Hab. in radicibus *Medicaginis sativæ* in Æquatoria Argentina et pr. Colmar i. Els.

2. **Urophlyctis Rübsaameni** P. Magn. Ber. D. B. G. Gener. Heft 1749 1901, p. 150, tab. XXVII (sine diagnosi). — Hypogæa, in radicibus *Rumicis* excrescentias globuloso-tuberoideas usque 2-3 cm. long. generans; sporis perdurantibus excrescentias implentibus et lacunas varias gignentibus, hemisphæricis, levibus, brunneis, infra concaviusculis, 40-45 μ . diam.; mycelio filiformi vage ramoso, cellulas mares generante et inter sporas perdurantes intersperso.

Hab. in radicibus *Rumicis* scutati pr. St. Goar, Coblenz, Germania (Ew. H. RÜBSAAMEN).

3. **Urophlyctis Trifolii** (Pass.) Magnus in Centralbl. f. Bakt. 1902, IX, p. 896, *Synchytrium Trifolii* Pass. in Rabenh. F. Eur. n. 2419 (1877), *Olpidium Trifolii* (Pass.) Schröt. — Syll. VII, pag. 311, *Urophlyctis bohémica* Bubák, Centralbl. Bakt. 1902, pag. 817. — Pustulis vitreis semiglobosis, in petiolis usque 1 mm., in lamina foliorum usque 0,5 mm. latis; sporangiis perdurantibus sæpe ultra 200 in una pustula, parce parenchymatico-cellulosis, cellulis membrana demum clathrato-perforata, bilateralibus, apice altero semiglobosis, altero alte impressis; membrana sporarum levi, duplici, fusca exosporio tenui, endosporio crasso; sporis 40-50 μ . diam.

Hab. in foliis *Trifolii montani* (forma sporangiis perdur.) in pratis Vsetaty Bohemiæ, nec non in foliis *Trif.* pratensis et repentis in Italia et Germania.

4. **Urophlyctis hemisphærica** (Speg.) Syd. Ann. myc. 1903, pag. 517. Ita nominanda sunt: *Uromyces hemisphæricus* Speg. (1881), dein *Protomyces vagabundus* Speg. (1891), tandem *Entyloma hemisphæricum* Speg. (192), *Edomyces hemisphæricus* Speg. Not. synonym. p. 9 (1903), *Physoderma leproides* (Trab. et Sacc.) Lagerh. (1898). Cfr. Syll. XIV, p. 448, quæ species vero forte distinguenda est sub nomine *Urophlyctis leproides* (Trab.) Magn. in Ann. of Bot. 1897, p. 92, ubi et aliæ generis species optime illustrantur. Teste cl. Magnus, genus *Urophlyctis* a *Physodermate* est bene distinctum.

PROTASCUS Dang. Compt. rend. de l'Acad. de Sc. 1903, pag. 627 (Etym. *protos* primus et *ascus*). — Mycelium ampulliforme matrici immersum, collo longissimo perforante; sporangium nucleis 8 rarius 16 vel 32 foetum, sporas longissimas immobiles tot quot nucleos generans. — *Lagenidium* et *Myzocytyo* affine genus.

1. **Protascus subuliformis** Dang l. c. char. gen. (dimensiones omnes 1751 ab auctore omisse).

Hab. parasitice in Anguillulis in Gallia.

LAGENIDIUM Schenk — Syll. VII p. 278, IX p. 348, XI p. 248, XIV p. 450.

1. **Lagenidium Œdogonii** Scherffel in Hedw. 1902, p. (105). — Thallo 1752 unicellulari, tantum cellulam unicam afficiente, se totaliter in zoosporangium unicum (vel 2?) mutante, hyalino, utriculiformi, irregulari, valido, interdum ramis nonnullis, curtis, obtusis, validis; ductu evacuationis zoosporangii levi, cylindrico, æquali; zoosporis typice ancylistaceis, formam seminis Vitis viniferae imitante, ciliis duobus, lateralibus. Propagatio sexualis (oogonia et antheridia) ignota.

Hab. in cellulis vegetativis Œdogonii, Iglo Hungariae.

PYRRHOSORUS Juel in Bih. Svenska vet. Akad. 1901, p. 14 (extr.) (Etym. *pyrrhos* igneo-ruber et *sorus*). — Plasmodium e cellulis liberis, nudis liberis, fusiformibus, granulosis formatum. Sorus e sporangiis magnis, globosis et cellulis fusiformibus sterilibus compositus. Sporangia granulis aurantiacis farcta, 8 vesiculas (zoosporas) sphaeroideas includentia. Zoosporae piriformes, nucleo aurantiaco praeditae, biciliatae.

1. **Pyrrhosorus marinus** Juel l. c. p. 14 cum icone. — Sporangiiis 1753 globosis 8 μ . diam.; zoosporis piriformibus, 4,5 \times 2,5.

Hab. in ramis emortuis Cystoclonii purpurascens pr. Kristineberg in Suecia. — Saprophyta.

RHIZOCLOSTRIDIUM H. E. Petersen in Journ. de Bot. 1903, p. 214 (Etym. *rhiza* radix et *clostridium* glomus). — Sporangia globosa, crassiuscule tunicata, mycelio sub sporangiis in inflationem fulciformem dilatato et hinc in filamenta radiatim divergentia partito cincta. Filamenta tenuissima ramosissima, praelonga. Zoosporae globulosae v. ovoideae, flagello longissimo praeditae, per porum circularem sporangii exeuntis.

1. **Rhizoclostridium globosum** Petersen l. c. c. ic. — Sporangiiis sæ- 1754

pilus 17-20 μ . d., subinde multo amplioribus, initio guttulatis et vacuolatis; zoosporis 2-3 μ . diam. rubiginoso-nucleolatis; sporis immobilibus rarioribus, tunica brunnea præditis, granulis refringentibus foetis.

Hab. frequens in tegumentis vacuis nympharum Phryganearum in aquis dulcibus Seelandiæ.

SIPHONARIA H. E. Petersen Journ. de Bot. 1903, pag. 220 (Etym. *sipho* tubus). — Sporangia subglobosa v. piriformia, mycelio sub sporangiis non dilatato et in filamenta parce ramosa tubulosa divergentia diviso basi prædita. Zoosporæ uniciliatæ (?), per papillam lateralem sporangii exeuntes.

1. *Siphonaria variabilis* H. E. Peters. l. c. cum icon. — Sporangia 17-24 \times 16-21, subinde 12 \times 11, tenuiter hyalino-tunicata; zoosporis 1-3 μ . diam. globulosis, rubiginoso-nucleolatis.

Hab. non frequens in tegumentis nympharum Phryganearum in aquis dulcibus Seelandiæ.

ASTEROPHLYCTIS H. E. Peters. Journ. de Bot. 1903, p. 218 (Etym. *aster* et *phlyctis* bulla). — Sporangia globulosa, tunicis extus irregulariter cristato-dentata, mycelio sub sporangiis inflato et hinc in filamenta tenuissima, ramosa longa producto unilateraliter aucta. Zoosporæ 1-ciliatæ per porum basilem sporangii exeuntes.

1. *Asterophlyctis sarcoptoides* H. E. Peters. l. c. c. icone. — Sporangia 21-28 \times 14-25; zoosporæ 2-3 μ . diam.

Hab. rarius in tegumentis vacuis nympharum Phryganearum in aquis dulcibus Seelandiæ.

SPOROPHLYCTIS Serbinow in Travaux de la Soc. impér. de Naturalistes de St. Pétersbourg, 1899, t. XXX, p. 322 (Etym. *spora* et *phlyctis* pustula, bulla). — Mycelium vesiculiforme ovoideum, rostellum minuto præditum; vesicula in hyphas sæpe ramulosas sensim transiens. Contentus hujus mycelii e poro effusus et dein membrana vestitus, in sporangium transmutatum. Sporæ intra sporangium germinantes et per hyphulas illud perforantes et intra algarum matricum cellulas penetrantes. Propagatio sexualis quoque evenit: protoplasmatis pars individui unius in individuum alterum effunditur et, membrana induta, in oosporas spinulosas transmutatur. — Ab affinis generibus reproductione per sporas, non per zoogonidia, dignoscitur.

1. *Sporophlyetis rostrata* Serbinow l. c. — Characteres generis. 1757

Hab. parasitice in filamentis algarum *Draparnaldia* et *Chætophoræ* in Russia.

*Fam. 4. Saprolegniaceæ DE BARY *).*

SAPROLEGNIA Nees — Syll. VII p. 268, IX p. 345, XI p. 244, XIV p. 453.

1. *Saprolegnia retorta* L. Horn in Ann. mycol. 1904, p. 233 (absque 1758 diagnosi). — Mycelio filiformi, tenuissimo, ramoso, hyalino, 15 μ . cr. continuo; sporangiis breve clavatis paucis; oogoniis copiosis sphaericis, in ramulis sæpe valde curvatis acrogenis, 1-8-sporis, 30-75 μ . diam., oosporis globosis 20-25 μ . diam., guttulam oleosam foventibus.

Hab. in aqua Pisorum pr. Halle Germaniæ. — Affinis *S. spirali*.

ACHLYA Nees — Syll. VII p. 274, IX p. 346, XI p. 245, 650.

1. *Achlya oidiifera* L. Horn in Ann. mycol. 1904, pag. 230 (absque 1759 diagnosi). — Hyphis cylindraceis usque 45 μ . cr., subinde in articulos ellipsoideo-oblongos (oidiiformes!) secedentibus; oogoniis sphaericis varia magnitudine, minute punctatis, 2-8-sporis; oosporis, vetustis visis, hinc lateraliter oleoso-guttatis.

Hab. in animalculis variis, Formicis, Verminibus etc. pr. Halle Germaniæ (etiam in aqua Pisorum culta).

PYTHIUM Pringhsh. — Syll. VII p. 270, IX p. 343, XI p. 244, XIV p. 455, XVI p. 395.

1. *Pythium ultimum* Trow, Ann. of Bot. 1901, p. 300, tab. XV et 1760 XVI — Mycelio saprophytico; hyphis filiformibus 6 cm. longis, 1,7-6,5 μ . diam. ramosissimis, maturitate septatis; conidiis terminalibus, globosis vel oblongis, 27,8 \approx 22,9 vel 17 \approx 14; oogoniis terminalibus, sphaeroideis levibus, 19,6-22,9; antheridiis solitariis, in cultura raro binis in singulo oogonio; oosporis solitariis, sphaeri-

*) Quoad Monoblepharidaceas cfr. Thaxter, Not. on Monoblepharis in Rhodora 1903, p. 105 cum optimis iconibus.

cis 14,7-18,3, membrana crassa, duplici, luteola donatis; zoosporis nondum evolutis.

Hab. in plantis juvenilibus Nasturtii, in foliis putridis et in tuberibus coctis Solani (in capsula Petri cultum), Cardiff Britanniae.

Fam. 5. Peronosporaceæ DE BARY.

Drepanoconis Schröt. et P. Henn. — Syll. XIV p. 457.

1. **Drepanoconis larviformis** Speg. Not. Synonym. pag. 9, 1903, in Ann. Mus. Nac. Buenos Ayres Tomo IX. — Ita nominandus *Helicomycetes larvæformis* Speg. — Syll. X p. 568 — qui idem est hac *Drepanoconis brasiliensis* Schröt. et Henn., teste Spegazzinio. Etiam *Uredo farinosa* Henn., forte huc spectat, teste eodem Spegazzinio.

Cystopus Lév. — Syll. VII p. 233, IX p. 340, XI p. 242, XIV p. 458, XVI p. 396.

1. **Cystopus Mikaniæ** Speg. Myc. argent. ser. II, 1902, pag. 67. — 1761
Maculis nullis; soris hypophyllis, numerosis, angulatis, 0,5-2 mm. diam., epidermide disrupta cinctis; conidiis eximie discoideis, numerosissimis, 16-18 \times 8-10, utrinque concaviusculis; oogoniis desideratis.

Hab. ad folia viva Mikaniæ phyllopodæ, in dumetis prope Cordoba in Argentina (T. STUCKERT).

2. **Cystopus platensis** Speg. Rev. Arg. de Hist. Nat. p. (7). *C. cu-* 1762
bicus Speg. in Fung. Arg. p. I, n. 68, nec Lév. — Soris hypophyllis, macula primo pallescente dein purpurascente cinctis, irregularibus, 1-2 mm. diam., sparsis v. hinc inde laxè gregariis, vix prominulis, candidis, diu epidermide velatis, dein erumpentibus ac pulverulentis; conidiis globoso-cuboideis, 20-22 \times 18-20, hyalinis, cate-nulatis, minute densissimeque punctulatis (an tantum granuloso-farctis?) supremis ovato-obtusis; cellulis basalibus sterilibus, obconico-turbinatis, 40-45 \times 12-15, crasse tunicatis, per ætatem flavescentibus; oosporis ignotis.

Hab. in foliis vivis Boerhaviæ hirsutæ, prope Buenos Aires et prope Cordoba Amer. merid. — *Cyst. Bliti* (Biv.) de Bary peraffinis sed conidiis punctulatis majoribus satis, ut videtur, recedens.

SCLEROSPORA Schröet. — Syll. VII p. 238, IX p. 341, XIV, 461.

1. *Sclerospora graminicola* (Sacc.) Schroet. — Syll. VII, p. 238. — 1763

var. *Setariæ-italicæ* Traverso in Bull. Soc. botanica ital. 1902, n. 9, p. 168. — A typo differt oosporis majoribus, nempe 39-45 μ . diam. nec 23-38 (sine tunica oogoniali); tunica oogoniali, magis regulariter sphærica, 7-11 μ . cr. nec 4-6; totâ spora denique 53-64 μ . diam. nec 39-55; differt etiam tunicâ oosporarum tenuiori. Status conidiophorus ignotus videtur.

Hab. in foliis et spicis (in virescentiam inductis) *Setariæ italicæ*, *Albosaggia*, prope Sondrio, Ital. bor. et in America bor.

PLASMOPARA Schroet. — Syll. VII p. 239, IX p. 342, XI p. 243, XIV p. 460.

1. *Plasmopara Vincetoxici* Ell. et Ev. in Journ. of Mycol. 1902, p. 70. 1764

— Cæspitulis hypophyllis, albis, 3-4 mm. diam., in longitudinem subconfluentibus et in pagina inferiore maculas, brunneas efformantibus; conidiosporis brunneis continuis, 8-10 μ . cr., superne 2-3-ramosis; ramis ultimis sterigmata 8-10 μ . long. ferentibus; conidiis globosis vel breve ellipticis circ. 15 \times 13; oosporis globosis brunneis circ. 20 μ . diam.

Hab. in foliis *Vincetoxici* spec., Alabama Americæ.

2. *Plasmopara cubensis* (B. et C.) Humphrey in Mass. Agric. Stat. 1765

Rep. 1890, p. 210, t. II, f. 11-14, *Peronospora cubensis* B. et C. — Syll. VII, p. 261, ubi diagnosis ex B. et C. imperfecta. — Oogoniis adhuc ignotis; conidiis basi apiculatis, 22-25 \times 15-17, typice violaceis (ex Humphrey) v. olivaceo-brunneis (a nobis visis).

Hab. in foliis *Cucumeris sativi*, *C. Melonis*, *Cucurbitæ Peponis*, *Cocciniæ*, *Momordicæ*, *Melothriæ*, *Sicyi* aliisque *Cucurbitaceis* in Java, Amer. bor., Africa orient., Maniuria, Japonia, Britannia, Austria, Italia, Hungaria, Rossia. — var. *tweriensis* Rostowzen. in Flora 1903, p. 405: conidiophoris et conidiis quam in typo paullo crassioribus. In fol. *Cucumeris sativi*, Twer Rossicæ. — var. *atra* Zimm. in Centralbl. f. Bakter. 1902, p. 148: conidiis 24-26 \times 16-20 griseo-atris. In fol. *Cucurbitæ*, in Java (Verisimiliter utraque var. vix consideranda). Cl. Rostowzen l. c. pro hac specie genus instituit novum (*Pseudoperonospora*) medium, teste auctore, inter *Peronosporam* (cujus habet conidiophora) et *Plasmoparam* (cujus haberet conidia plasmopara, sed non conidiophora). Sed res ulterius inquirenda.

PERONOSPORA Corda — Syll. VII, p. 244, IX p. 342, XI p. 243, XIV p. 458, XVI p. 397.

1. *Peronospora cristata* Tranzsch. Enum. fung. in Tauria a. 1901, 1766 lecti, 1902 p. 3. Trav. du Musée Bot. An. de l'Acad. Imp. des Sciences de St. Pétersbourg. livr. I, 1902, p. 49 (rossice) et livr. II, 1904 (latine). — Conidiophoris singulis v. pluribus e stomatibus exeuntibus, 300-500 μ . altis, 8-9 μ . crassis; parte ramosa $\frac{1}{4}$ - $\frac{1}{2}$ totius altitudinis conidiophori sistente; ramis rectis vel parum curvis, acutangulo-divaricatis, extimis breviter subulatis, terminalibus re-ctis, lateralibus brevioribus, parum curvatis, sub angulo recto vel obtuso divergentibus; conidiis ellipsoideis, obtusis, 24-28 \times 16-26, subhyalinis; oogoniis globosis, tunica achroa, tenui præditis; oosporis globosis, 31-47 μ . diam., fuscis, cristulis et verruculis acutatis ornatis.

Hab. in foliis Papaveris hybridi in Tauria sat vulgaris (non in Pap. Argemone). — *P. Holostei* Casp., cui species proxima, differt cristulis et verrucis oosporarum densius dispositis. Conidiophora dense superficiem inferiorem foliorum obtegunt, oospora copiose in foliis occurrunt.

2. *Peronospora Eranthidis* (Pass.) Fisch. Phyc. pag. 475, Berl. Ic. 1767 fung. Phyc. pag. 38, *P. Myosuri* f. *Eranthidis-hiemalis* Pass. in Thüm M. U. n. 1015. — Cæspitulis densis totum folium occupantibus, sordide albescentibus; conidiophoris singulis v. pluribus fasciculatis, circ. 300 \times 8-10, 5-7-ies ramosis, ramis plus minus curvatis, extimis subulatis, longiusculis, recurvatis; conidiis elongato-ellipsoideis, obtusis, pallide lutescentibus, 38-46 \times 17; oosporis globoso-angulatis, perinio crasso, obscure luteo-brunneo, 34-42 μ . d.

Hab. in foliis Eranthidis hiemalis in Italia sup. — A *Peron. Ficaræ* præcipue conidiis longioribus differre videtur.

3. *Peronospora Nicotianæ* Speg. Rev. Arg. de Hist. Nat. 1891, p. (11). 1768 — Cæspitulis hypophyllis, macula flavescenti-pallescente amphigena insidentibus, araneoso-pulverulentis, laxis, tenerrimis, sordide subcinerescens; hyphis conidiferis erectis, molliusculis 250-500 \times 10-12, deorsum vix incrassatulis, in dimidia parte infera 190-250 μ . longis, simplicibus, in supera corymboso-ramosis, pluries (6-7) dichotomis, ramululis extimis longiusculis 15-18 \times 2-3, divaricato-patentibus, arcuatis v. subsigmoideis, apice obtusiusculis monocarpicis; conidiis ellipsoideis vel ovoideis non vel vix apiculatis 18-20 \times 9-11, episporio tenui levi, fumoso tectis, protoplasma nubiloso hyalino farctis; oogoniis globoso-angulosis 80-

100 μ . diam., tunica crassa hyalina, oosporam unicam globosam 50-80 μ . diam., episporio eleganter denseque areolato fulvo-fuligineo subopaco tectam gerentibus.

Hab. in foliis vivis *Nicotianæ longifloræ* in nemorosis Palermo vocatis, prope Buenos Aires Argentinæ Amer. merid.

4. *Peronospora dubia* Berl. Ic. fung. Phyc. p. 23, t. 28, *Peronospora Hyoscyami* Thüm. Fungi Austr. n. 939, non De Bary. — Cæspitulis densiusculis, griseolis; conidiophoris humilibus, 180-220 \times 9-10, paucis e stomatibus fasciculatim exeuntibus, superne ter quater dichotomo-ramosis, ramis pænultimis et ultimis rectangulo-divaricatis, rectis v. parum curvis, ultimis vero apice obtusiusculis; conidiis majusculis late obovoideis, basi parum attenuatis, superne obtusissimis, 22-27 \times 16-20, pallide griseolis; oosporis ignotis.

Hab. in foliis *Hyoscyami nigri* in Austria. — A *Per. Hyoscyami* videtur diversa et potius *P. effusæ* v. *minori* proxima.

5. *Peronospora Floerkeæ* Kellerm. Journ. of Mycol. 1904, pag. 172, 1770 tab. 74. — Conidiophoris crasse cylindræis, 16-18 μ . cr., elongatis, longo tractu simplicibus, supra copiose ramosis, ramis semel v. bis dichotomicè v. irregulariter divisis, ramulis summis tenuibus, angustis, conspicue curvatis; conidiis ovoideis v. subglobosis, 24-32 \times 18-25; oosporis numerosis, subglobosis, 24-36 μ . diam., membrana brunneola, levi v. leviter rugosa.

Hab. in foliis caulibusque *Floerkeæ proserpinacoidis*, Columbus, Ohio Amer. bor. — Affinis *Per. parasiticæ* sed irregularius ramosa, ramulis ultimis longioribus, vix matricem deformans etc.

6. *Peronospora Saxifragæ* Bubák in Hedw. 1903, p. (103). — Cæspitulis laxis, tenuibus, dilute violaceis; conidiophoris quater-sexies dichotomo-ramosis, leviter bulbosis, 400-800 μ . long., infra 11-14 μ . cr.; ramulis, angulo acuto patentibus, ultimis inæqualibus sæpe 11-20 μ . long. angulo recto v. obtuso divergentibus, fortiter incurvatis, sæpius laxis; conidiis dilute violaceis, ellipsoideo-oblongis, 26-33 \times 17-22, apice rotundatis, basi in pedicellum brevem attenuatis indeque sæpe piriformibus; oosporis non visis.

Hab. in foliis *Saxifragæ granulatæ*, prope Pragam Bohemiæ. — A *Per. Chrysosplenii* probe distincta.

7. *Peronospora Polygoni* Halst. Journ. of Myc. 1889, p. 9, Berl. Ic. fung. Phyc. p. 25, t. XXXI. — Cæspitulis densis sordide violascentibus, effusis; conidiophoris plerumque pluribus e stomatibus

exeuntibus, $320-420 \times 9-11$, superne 5-7-ies ramosis; ramis præcipue secundi et tertii ordinis plerumque curvulis, patulis, extimis sub angulo recto exeuntibus, lateralibus sæpius brevioribus; conidiis elongato-ellipsoideis inferne parum attenuatis, fere obpiriformibus, majusculis, $30-40 \times 15-20$, dilute griseolis; oosporis adhuc ignotis.

Hab. in foliis Polygoni Convolvuli et *P. avicularis* in Austria, Amer. bor. — Cll. Halsted et Berlese ll. cc. tribuunt Thümenio hanc speciem sed cl. Thümen nullibi nomen *Per. Polygoni* scripsit, hoc observante cl. Oudemans in Rev. Myc. 1902.

CHLOROSPORA Speg. Rev. Arg. de Hist. Nat. 1891, pag. 29, Sacc. Syll. XI p. 243 (nomen) (Ety. *chloros* virens et spora.) — Mycelium hyphoideum dense ramoso-intricatum, hyalinum, endogenum, haustoriis præditum; hyphæ conidiophoræ superficiales pinnatim alterne ramosæ; ramuli spinæformes monocarpici; conidia acrogena simplicia, colorata, plasmopara. — Oosporæ ignotæ.

1. *Chlorospora vastatrix* Speg. l. c. — Mycelio endogeno, per totum 1773 bulbum serpente, præcipue in partem inferam circa radices, maculas primo purpurascens, dein sordide lateritias, postremo sordide olivaceas ac purulento-mucosas efficiente, ex hyalino candido, densissime ramoso, ramis crebre intricatis, tortuoso-intestiniformibus, $10-12 \mu$. crassis, hinc inde parce septulatis, protoplasmate hyalino dense grosseque oleoso-guttiformi faretto, haustoriis versiformibus $8-10 \times 5-7$, levibus vel colliculoso-nodulosis plus minusve densis armato; ramulis fertilibus (in cultura tantum evolutis), superficialibus, densiusculis, repentibus teretibus $10-30$ mm. long., $8-10 \mu$. crassis, septulatis, plus minusve intricatis, alterne distichoramosis; ramululis continuis vel rarius 1-pseudo-septatis rectis, acutis $50-80 \times 5-6$, monacarpicis; conidiis obovatis $24-40 \times 20-30$, superne obtuse rotundatis, inferne subcuneato-rotundatis minuteque papillatis, episporio tenui levissimo, primo hyalino dein chlorino, postremo olivaceo v. subfuligineo vestitis, protoplasmate hyalino nubiloso vel grosse 1-guttulato faretis; oosporis ignotis.

Hab. in bulbis vivis Allii Cæpæ, in hortis prope La Plata Amer. mer. — Species perniciosissima. In germinatione protoplasma ex papilla basali protrudit, ac hypham longiusculam gracilem etiam pinnati-ramulosam emittit.

PYRENOMYCETÆ Fr. Em.

Syll. I p. 1, IX p. 364, XI p. 252, XIV p. 462, XVI p. 398.

Fam. 1. Perisporiaceæ Fr.

*Trib. 1. Erysiphææ Lév. *)*

SPHÆROTHECA Lév. — Syll. I p. 3, IX p. 364, XIV p. 462, XVI p. 402.

1. **Sphærotheca Castagnei** Lév. — Syll. I, p. 4. — * **Sph. Delphinii** 1774 Karst. Fungi nov. Lœnnb. 1904, p. 5 (Finska Vetensk. Soc.). — Amphigena; mycelio tenui evanescente, arachnoideo, pallescente; peritheciis sparsis sphæroideis, fuscis 50-80 μ . diam., appendiculis paucis (3-6), continuis, subinde ramosis, fuligineis, apicem versus dilutionibus, flexuosis, perithecio duplo vel triplo longioribus; ascis subsphæroideis vel late ellipsoideis magnis, octosporis; sporidiis late ellipsoideis, hyalinis; conidiis non visis.

Hab. in foliis Delphinii grandiflori in territorio Baicalensi (O. A. F. LÖNNBOHM).

PHYLLACTINIA Lév. — Syll. I p. 5, IX p. 366, XVI p. 398.

1. **Phyllactinia antarctica** Speg. — Syll. IX, p. 366. — Huc ducenda est *Phyll. clavariæformis* Neger. — Syll. XVI, 398. — Cfr. Spegazzini Myc. argent. ser. II, 1902, p. 68.

UNCINULA Lév. — Syll. I p. 6, IX p. 366, XI p. 252, XIV p. 462, XVI p. 399.

1. **Uncinula septata** E. S. Salm. in Journ. of Bot. 1900, p. 427, c. 1775 icon. et Supplem. Not. Erysiph. 1902, p. 102. — Hypophylla; mycelio evanescente; peritheciis plus minus sparsis, globoso-len-

*) Conferendum imprimis optimum opusculum *Suppl. Notes on the Erysiph.* New York 1902, cl. E. S. SALMON.

ticularibus, majusculis 160-210 μ . diam.; cellulis peritheci exterioribus distinctis, minutis, 5-10 μ . diam., appendicibus crebris 100-170 vel pluribus in eodem perithecio, 30-100 \times 5, simplicibus, levibus, 1-8-(plerumque 5-septatis) deorsum succineis, apicibus plerumque helicoidis; ascis 6-12 in quoque perithecio, immaturis visis.

Hab. in foliis *Quercus glanduliferæ*, Mt. Myogi, Prov. Kozuki (KUSANO) et Mt. Tsukuba (T. NISHIDA). — Præcipue appendicibus septatis dignoscenda species.

2. *Uncinula conidiigena* Cocconi in Mem. R. Accad. sc. Bologna, Ser. V, 1776 t. X, 1904, p. 235 cum tabula. — Peritheciis mycelio (*Oidium*) effuso insidentibus minutis globulosis, flavo-brunneis, appendicibus numerosis apice uncinatis cinctis, ascos nonnullos 3-7 oblongo-ovoideos breviter stipitados continentibus; sporidiis in quoque asco quaternis globosis, intus granulosis, etiam intra ascum germinantibus, dein expulsis, in mycelium conidia *Oidii* normalia generans abeuntibus; conidiis normalibus interdum germinantibus et conidiola minora ovoidea in apice hypharum gignentibus.

Hab. in foliis vivis *Populi tremulæ* in agro Bononiensi. Fere absque dubio forma quædam *Uncinulæ* aduncæ.

MICROSPHÆRA Lév. — Syll. I p. 10, IX p. 368, XI p. 252, XIV p. 463, XVI p. 402.

1. *Microsphæra ferruginea* Erikss. Fung. paras. scand. n. 145, Salmon 1777 Mon. Erysiph. p. 169, f. 56-58. — Cespitibus amphigenis, ferrugineis, pulveraceis, demum late effusis confluentibusque; conidiis utrinque rotundatis, pallide fuscis, pellucidis, 28-32 \times 16-18; peritheciis fusco-atris, sparsis, mycelio densissimo arachnoideo persistenti intextis 80-90 μ . diam.; appendicibus 6-10, perithecium æquantibus v. duplo longioribus 4-6-ies dichotomis, hyalinis; ascis 6-8 μ . in quoque perithecio 44-50 \times 26-30; sporidiis 6-8 in quoque asco 16-18 \times 10-12.

Hab. in foliis *Verbenæ hybridæ* cultæ, cui valde noxia, in Suecia.

2. *Microsphæra Betæ* Vahna Zeitschr. f. Zuckerind. in Böhmen 1778 XXVII, p. 180, t. I. — Hyphis conidiophoris repentibus haustoriis lobulatis, præditis; conidiis (*Oidiis*) cylindræco-doliiformibus, utrinque obtusis 44 \times 15-20 plerumque solitariis nec catenulatis; peritheciis globosis, brunneis, 75-130 μ . diam. astomis, laxe parenchymaticis, basi appendicibus 8-10 filiformibus continuis, flexuosis adscendentibus, subhyalinis, basi coloratis, sursum furcatis v. in

ramulos subdichotomos laxiusculos, subinde apicibus bilobulatos divisis cinctis; ascis obovatis brevissime stipitatis in quoque perithecio 3-5, subtetrasporis; sporidiis ellipsoideis, levibus, intus granulosis, hyalinis, 28-30 \approx 18.

Hab. in foliis vivis Betæ vulgaris, quam valde vexat in Bohemia. — Teste auctore, species gignit zoosporangia et zoosporas, quod factum vere novum et notabile videtur, tamen novis experimentis confirmandum.

ERYSIPHE Hedw. — Syll. I p. 15, IX p. 870, XI p. 253, XVI p. 404.

1. **Erysiphe Acanthophylli** N. Speschnew, Fungi transcaspici et turkestanici, 1901, p. 5, tab. I, fig. 9-15. — Mycelio hypophyllo; hyphis tenuibus, ramosis vel simplicibus, septatis valde undulatis, achrois, granulosis, 1,5-2 μ . crassis; hyphopodiis nodosis, bifurcatis; peritheciis epiphyllis, solitariis, sparsis, haud immersis, globosis v. subglobosis, ca. 160 μ . diam., atris; setulis rectis, continuis, nucleatis, apice rotundatis, 2-3 μ . cr.; ascis late piriformibus, octosporis, 38 \approx 28; sporidiis subsphæricis, continuis, hyalinis, 8 μ . d.; hyphis conidiiferis ab hyphis mycelii non diversis; conidiis elongato-ovoideis, episporio tenuissimo, 38-43 \approx 16-19. 1779

Hab. in foliis caulibusque Acanthophylli glandulosi in Rossia.

2. **Erysiphe Euphorbiæ** N. Speschnew Fungi transcaspici et turkestanici 1901, p. 3, tab. I, fig. 1-8. — Mycelio epiphyllo, interdum hypophyllo, constrictè effuso, confluenti, tenui; hyphis repentibus, ramosis, flexilibus, undulatis, septatis, dense intertextis, crassiusculis 4,9-7 μ . crass., hyalinis, hyphopodiis biclavatis, alternis, 14,8-22,5 μ .; peritheciis gregariis, globosis dein subglobosis, in villo nidulantibus 150-180 μ . diam., atro-brunneis; setulis hyalinis, continuis, enucleatis, undulatis, apiculo pedaliformi, 7-9 μ . crassis perithecio, duplo longioribus; ascis elongato-piriformibus, apiculo obtusis, operculatis, 3-6-sporis, 90-98 \approx 22-24 sporidiis ellipsoideis, continuis, 20-24 \approx 11-15, hyalinis; hyphis conidiiferis mycelio similibus; conidiis elongato-ovoideis, 20-24 \approx 12-16, episporio 2-3 μ . crasso. 1780

Hab. in foliis Euphorbiæ lanatæ in Rossia transcapica.

3. **Erysiphe taurica** Lév. — Syll. I, pag. 16. — var. *andina* Speg. 1781
Myc. Arg. ser. II, 1902, p. 68. — Peritheciis superficialibus, in vivo globosis, in sicco plus minusve cupulato-collapsis, 150-250 μ . diam. atris, contextu membranaceo-subcarnosulo, subopaco, appendi-

cibus numerosis radiantibus, simplicibus v. parce ramosis, 100-130 \times 4-6, primo hyalinis dein subchlorinis; ascis apapophysatis 6-10 in quoque perithecio, subclavulatis, apice sæpius subtruncatis, basi in petiolo crasso brevissimo cuneatis, 70 80 \times 35-40, bisporis; sporidiis ellipticis, utrinque obtusis, 26-30 \times 12-14, obsolete guttulatis, primo tunica mucosa vestitis, hyalinis.

Hab. in foliis vivis Euphorbiæ cuiusdam prope Mendoza in Argentina.

4. **Erysiphe Asterisci** P. Magn. in Hedw. XLIV, p. 16, tab. II, — 1782
Conidiis valde elongatis, utrinque rotundatis, 52 \times 16 extus minute granulosi (ex icone levibus et intus minute granulosi) in conidiophoro brevi solitarie acrogenis; peritheciis depresso-globosis, 194 μ . latis, 56 μ . alt., a medio deorsum appendiculis seu hyphis numerosis tortuosis descendentibus, hyalinis (?), matrici firmiter affixis; ascis in quoque perithecio numerosis (usque 10) ovoideo-oblongis apice rotundatis, brevissime sensim stipitatis, 2-4-sporis, 80-85 \times 28-30 (ex icone); sporidiis (immaturis visis) ellipsoideis monostichis.

Hab. in foliis Asterisci aquatici, Santa Cruz Teneriffæ insulæ. (BORNMÜLLER). — Peritheci contextus ex icone crassiusculus. Matrix sub quoque perithecio leviter impresso-concaviuscula.

5. **Erysiphe Solani** Vanha Zeitschr. f. Zuckerindustrie in Böhmer 1783 XXVII (species ibi nominata, sed nondum descripta).

Hab. in foliis Solani tuberosi in Bohemia.

Trib. 2. Eurotiæ Sacc.

EUROTIIUM Link. — Syll. I p. 95, IX p. 371, XI p. 254, XVI p. 1123.

1. **Eurotium microsporum** Mass. et Salm. Coproph. fungi I, p. 333, 1784 fig. 28. — Peritheciis sparsis circ. 130 μ . diam., globosis, primo flavovirentibus, dein citrinis, superficialibus; contextu parenchymatico e cellulis tenuibus 5-8 μ . latis composito; ascis sphaeroideis v. subsphaeroideis 7-8 μ . diam., citissime diffluentibus, octosporis; sporidiis minutissimis, sphaeroideo-biconvexis, 2 μ . diam. levibus chlorinis.

Hab. in fimo Capreoli Capræ, Haplocerotis montani, Capræ dorcadis, Capræ sinaiticæ, Ovis Vignei, Caviæ Cobayæ, Kew Britannia.

2. **Eurotium rubrum** Bremer, Die fettverzehr. Organism. in Nahr. 1785 u. Futtermitteln. Dissert. Münster 1902 et in Zeitsch. f. Untersuch. d. Nahrung in Genussmitt. IV, 1901, pag. 72. — Mycelio primum niveo, dein flavo, tandem rufo-brunneo, 4-8 μ . diam.; conidiis ovoideis v. sphaeroideis, griseo-virescentibus 5-8 μ . diam. verruculosus; peritheciis globosis, membranaceis, primum flavis, demum brunneo-rubris, 100-150 μ . diam.; ascis globulosis, octosporis; sporidiis lenticularibus, ambitu plano-sulcatis, levibus, hyalinis 6 μ . diam. e latere 4-5 μ . cr.

Hab. in seminibus tritis putrescentibus *Gossypii*, socia *Monilia* spec., Münster in Germania. — Colore rubido dignoscitur imprimis ab *Eur. repenti* proxime affini specie.

PENICILLIOPSIS Solms Laubach. — Syll. IX p. 945, XI p. 355, XVI p. 406.

1. **Penicillioipsis palmicola** P. Henn. Fungi Amaz. III, 1904, p. 352, 1786 cum icon. — Stromatibus conidiophoris fasciculatis, filiformibus subulatis, carnosus, erectis, viridi-flavis usque ad 7 cm. longis, 1-2 mm. crassis, simplicibus, ex hyphis septatis 5-15 μ . crassis conflatis, sicco atrofuscis, succo sanguineo, conidiophoris lateraliter subcapitatis, ramulis clavatis plurimis circumdati, sterigmatibus subfusoides apiculatis, 13-16 \approx 4-5; conidiis catenulatis ellipsoideis flavo-fusculis, levibus, 6-7 \approx 4 μ ; ex eodem stromate conidiis catenulatis subcuboideis vel subglobosis, hyalinis, ca. 8-15 μ . diam. Stromata peritheciigera ignota.

Hab. in fructibus Palmarum, Rio Jurua, Jurua-Miry Amazonia.

2. **Penicillioipsis juruensis** P. Henn. Fungi Amaz. IV, Hedw. XLIV, 1787 1905, p. 59. — Stromatibus conidiophoris fasciculatis, filiformibus simplicibus, erectis, ca. 10 cm. longis, 1-1 $\frac{1}{2}$ mm. crassis, alutaceis; ex hyphis septatis conflatis, conidiophoris patentibus subcapitatis, sterigmatibus subfusoides apiculatis 10-16 \approx 3-5; conidiis catenulatis ellipsoideis, flavo-brunneolis, levibus, 6-10 \approx 5-7.

Hab. in seminibus *Lecythidaceæ* cujusdam, Rio Jurua Brasiliae. — Habitu *P. palmicolæ* P. Henn.

3. **Penicillioipsis? togoensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 40. 1788 Syll. XVI, p. 1123 (nomen). — Stromate conidiophoro phyllogeno, sparso, clavariiformi, simplici v. dichotomo-ramoso, fusco-brunneo 5-7 cm. longo, stipite tereti vel compresso 1-2 mm. cr., ramis subulatis in axillis compressis 0,5-1,5 cm. longis, levibus, sub-

glabris, apice acutis, basidiis late clavatis, 30-35 \times 20, fusciculis ubique vestitis; conidiis catenulatis subglobosis v. ovoideo-ellipsoideis, fuscis v. brunneo-fuscis, verrucosis 6-9 \times 6-7. Stromata ascopora ignota.

Hab. in foliis putridis, Togo Afr.

HYALODERMA Speg. — Syll. IX, p. 437, XI p. 270, XIV p. 465, XVI p. 406.

1. **Hyaloderma filicicolum** Pat. in Duss Enum. Champ. Guadel. 1903, 1739 p. 69. — Sparsum v. aggregatum; peritheciis globulosis, flavido-pallidis, 180-300 μ . diam.; mollibus, contextu hyalino, tenui, celluloso, basi pilis fasciculatis, rigidis, 15-30 \times 5-7, radicanibus; ascis cylindraceis, octosporis, paraphysibus ramulosis; sporidiis linearibus, flexuosis, 65-90 \times 3-4, obscure septulatis.

Hab. sub foliis languidis filicum (*Meniscii* sp.) ubi in mycelio hyphomycetis cujusdam vivit, Gourbeyre Guadalupæ (Duss).

Trib. 3. Engleruleæ P. Hennings.

Perithecia tenui-membranacea, pallida, contextu subanhisto.

ENGLERULA P. Henn. in Engl. Bot. Jahrb. 1903, p. 49 (Etym. ab illustri botanico ENGLER berolinensi). — Perithecia hyphicola, superficialia, sicco subcornea, mellea, madore subgelatinosa, tenui-membranacea, sine structura cellulosa distincta, vix ostiolata. Asci ovoidei, octospori, aparaphysati; sporidia atro-fusca 1-septata.

1. **Englerula Macarangæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. — 1790 Peritheciis hypophyllis, sparse gregariis, superficialibus, in hyphis fuscis, septatis, ramosis 3,5-4 μ . cr. parasiticis?, basi hyphis hyalinis, septatis, ramosis, ca. 3-4 μ . cr., circumdatis; conidiis substellatis, fuscoideis 1-3-septatis, intus 1-4-guttulatis, hyalinis, 10-20 \times 3-4; peritheciis ovoideis, ca. 80-150 μ . diam. sicco subcorneis, submelleis fusciculis, rugulosis, humido-gelatinosis, hyalinis, haud cellulosis, apice subostiolatis; ascis ovoideis, vertice crasse tunicatis, basi apiculato-curvulis, octosporis, 40-60 \times 35-45, paraphysibus haud conspicuis; sporidiis conglobatis, ovoideis vel ellipsoideis, utrinque rotundato-obtusis, medio-septatis, paullo constrictis, biguttulatis, primo hyalinis, dein atris, 20-30 \times 12-18.

Hab. in foliis Macarangæ, Ost-Usambara Africae orient. (ENGLER).

SACCARDOMYCES P. Henn. Fungi Amaz. III, Hedw. 1904, p. 353 (Ety. genus Syllogis auctori humanissime dicatum). — Perithecia superficialia, minutissima, subovoidea, contextu tenui membranaceo, subanhysto, ex hyphis radiatis, pallido-fuscidulo, poro exiguo periphysibus tenuissime filiformibus instructo. Asci subfusoides, 8-spori, paraphysati. Sporidia aciculari-filiformia, hyalina, continua. — *Hyalodermati*, *Globulinæ* et *Englerulæ* affinis.

1. **Saccardomyces bactridicola** P. Henn. l. c. — Maculis fuscis, rotundatis; peritheciis cæspitosis vel singularibus, subglobosis vel ovoideis fuscis, ca. 140-150 × 110-120, contextu radiatim fibroso, subanhysto, subhyalino vel fusco, apice obtusis, dein apertis, poro periphysibus tenuissimis hyalinis prædito, basi hyphis repentibus, sparsis septatis, ramosis, flavo-brunneis, 2-3 μ . crassis; ascis fusoides, apice tunicatis, acutiusculis, basi fasciculatis, 30-40 × 6-10, 8-sporis; paraphysibus fasciculatis v. basi ramosis, filiformibus, flexuosis, superantibus, ca. 1-1½ μ . crassis; sporidiis parallelis filiformi-acicularibus, utrinque acutis, pluriguttulatis, 25-35 × 2-2½ μ . hyalinis.

Hab. in foliis *Bactridis* spec., socia *Meliola*, Iquitos Rio Amazonas, Perù.

2. **Saccardomyces socius** P. Henn. l. c. t. V, f. 6. — Peritheciis superficialibus gregariis vel sparsis in mycelio *Dimerii* vel *Asterinae* parasitantibus, ovoideis vel subglobosis, ca. 70-100 × 60-80 diam., contextu subanhysto, ex hyphis radiantibus, pallide fuscidulis, subpellucidis, vertice obtuse, rotundatis, dein apertis, poro paraphysibus tenuissime filiformibus, basi hyphis repentibus, septatis ramosis, pallide fuscis 2-4 μ . crassis; ascis fasciculatis fusoides vel subclavatis, 8-sporis, 18-30 × 6-8; paraphysibus filiformibus, flexuosis, hyalinis, ca. 1 μ . crassis; sporidiis parallelis, aciculari-filiformibus, curvulis, utrinque acutis, pluriguttulatis, 17-22 × 2-2½ μ . hyalinis.

Hab. in foliis *Solani*, socio *Dimerio Saccardoano*, *Asterina* etc., Leticia, Rio Amazonas, Perù.

Trib. 4. Perisporiæ Sacc.

Sect. 1. Hyalosporæ.

ANIXIA Fr. — Syll. I, p. 34.

1. **Anixia Bresadolæ** v. Höhnelt, Fragmente zur Mycologie 1903, p. 3. — Peritheciis sparsis, superficialibus, globosis, levibus, nitentibus,

atro-brunneis, demum fere nigris, 120-200 μ . latis, in basi filamentis longissimis, repentibus, laxis, fusciscentibus instructis; ascis cylindraceis, valde tenuibus, 140 \times 7-8; paraphysibus tenerrimis 3 μ . latis, ascos sæpe superantibus, septatis e cellulis 16 μ . long. formati; sporidiis octonis, monostichis, continuis, hyalinis, 12-20 \times 5-7, ellipsoideis uno latere subcompressis.

Hab. in ligno putri quercino, Frauenwart-Berg, prope Purkersdorf Australiæ inf. — Stat. ascoph. *Acrothecii Aniciæ* Höhnelt.

2. *Anixia myriasca* v. Höhnelt, Fragm. zur Mycologie 1903, p. 4. — 1794
Peritheciis sparsis, fimiculis, superficialibus, carbonaceis, fragilibus, contextu parenchymatico, ovoideis, conico-papillatis, astomis, levibus, c. 200 μ . crassis, atro-brunneis; ascis aparaphysatis, numerosissimis, hyalinis, tenerremis, octosporis, cylindraceis, supra obtusis, 50-60 \times 4-5; sporidiis oblique monostichis, hyalinis, enucleatis, ellipticis, 4-4,5 \times 2,5-3.

Hab. in fimo vaccino, ad montem Schneeberg loco Ochsenboden dicto Austriæ infer. — An *Aniciella*, nov. gen.? — Peritheciis conico-papillatis et ascis aparaphysatis a typo differt.

APIOSPORIUM Kunze — Syll. I p. 30. IX p. 375, XVI p. 408.

1. *Apiosporium sibiricum* Karst. Fung. nov. Loennb. 1904, pag. 5 1795
(Finska Vetensk. Soc.) — Mycelio præprimis in foliorum vivorum pagina inferiore petiolisque nascente acervulos effusos confluentes fuscis exhibente; peritheciis sphaeroideis, 80-90 μ . diam.; sporidiis non visis.

Hab. in *Spiræa palmata* et *Sanguisorba officinali* in regione Baicalensi Listvinitschnoje, nec non prope Omsk Sibiricæ (O. A. F. LÖNNBOHM). — Hyphæ continuæ, simplices, 4-6 μ . crassæ. Perithecia immatura, ascis sporisque carentia.

Sect. 2. Phæosporæ.

MAGNUSIA Sacc. — Syll. I p. 38, XVI p. 1123.

1. *Magnusia Bartlettii* Mass. et Salm. Coproph. fungi, I, pag. 333, 1796
fig. 26. — Peritheciis sparsis superficialibus, globosis, nigris, 250-500 μ . diam., contextu parenchymatico e cellulis minutis polygonis distinctis, ca. 4 μ . latis composito, apice coma pilorum ornatis, pilis 8-12 rigidis simplicibus plus minus divergentibus, atro-fuscis levibus, sparse septatis, apice interdum flexuosis, basin versus circ. 6 μ . latis, perithecii diametro duplo vel triplo longioribus,

ceterum glabris; ascis numerosis, globosis, 18-20 μ . diam. v. oblongo-piriformibus 20-25 \times 14-17, cito diffluentibus, 6-8-sporis; sporidiis ellipticis utrinque acutis, 8-10 \times 5, primum hyalinis demum distincte dilute fuliginis.

Hab. in fimo Capreoli capræ, Caviæ Cobayæ, Ovis Burrhel, O. Vignei, Kew Britannia.

ARACHNOMYCES Masee et Salmon, Coproph. fungi II p. 68 (1902) (Ety. ab *arachne* et *myces*). — Perithecia globosa, simplicia, astoma, membranacea, parenchymatica, appendicibus fuscis eumorphis instructa. Asci minuti, numerosi, globosi; sporidia primum conglobata, continua, fusca. — A *Pleuroasco* Mass. et Salm. subiculi defectu et appendicibus fuscis, a *Magnusia* Sacc. ascis globosis et sporidiis conglobatis differt.

1. **Arachnomyces nitidus** Mass. et Salm. l. c. fig. 127-131. — Peri- 1797
theciis globosis 100-350 μ . diam., nigris, nudis, nitidis, tenui-membranaceis, fragilibus; contextu parenchymatico e cellulis polygonis irregularibus 5-10 μ . latis composito; appendicibus e parte peritheci inferioris orientibus, paucis, flexuoso-contortis, atro-fuscis 5-6 μ . latis nitentibus, semiopacis, septatis, peritheci diametro 5-7-longioribus, apice rectis v. simpliciter circinatis; ascis numerosissimis, subglobosis circ. 10 μ . diam., mox evanescentibus; sporidiis octonis primum conglobatis, sphaeroideo-compressis, 3-4 \times 2,5, fuscis.

Hab. in plantis putridis, Kew (C. Crossland), et in fimo murino, Thornton Hough, Cheshire Britannia.

2. **Arachnomyces sulphureus** Mass. et Salm. l. c. fig. 55-60. — Pe- 1798
ritheciis globosis 500-730 μ . diam., superficialibus, indumento sulphureo arcte adhærente obtectis, tenui-membranaceis, fragilibus; contextu parenchymatico e cellulis polygonis irregularibus, 5-10 μ . latis composito, basim versus appendicibus paucis flexuosis 5-6 μ . latis, peritheci diametro 3-4 longioribus, divergentibus, atro-fuscis, nitentibus, semiopacis, septatis, apice circinatis v. circinato-contortis, cinctis; ascis numerosissimis, minutis, globosis 7-8 μ . diam., mox evanescentibus; sporidiis sphaeroideo-compressis 3-4 \times 2,5, fuscis, octonis, conglobatis.

Hab. in nido vetusto Bombi spec. Kew Britannia.

PLEUROASCUS Mass. et Salm. — Syll. XVI p. 1123.

1. **Pleuroascus Nicholsoni** Mass. et Salm. Coproph. fungi I, p. 330, f. 25. 1799

— Peritheciis in subiculo pannoso distincto v. confluyente, primam albo, deinde fuscescente ex hyphis delicatulis ramosis, intertextis, composito, plus minus immersis, dense gregariis parvis, 130-200 μ . diam., atris, fragilibus; contextu parenchymatico e cellulis distinctis 6-10 μ . latis composito; appendicibus pluribus e parte perithecii inferiore orientibus, hyalinis, arcte spiraliter convolutis, compressis, septatis; ascis numerosissimis, minutis globosis, 8 μ . diam., mox diffluentibus, in hyphis ramosis, dense glomerulatis; sporidiis octonis, conglobatis, globosis, minutis, circ. 3 μ . diam. fuliginis.

Hab. in fimo Caviæ Cobayæ, Kew Britanniae (G. NICHOLSON).

ORBICULA Cooke — Syll. I p. 38, IX p. 378.

1. **Orbicula Richenii** Rick in Ann. Mycol. 1904, p. 245. — Stromate effuso, nigro, spongioso, usque 5 mm. crasso, hyphis fuliginis multiseptatis ramificantibus, laxè intertextis formato, ramulis 10 \times 4 bifidis; peritheciis 350 μ . diam., rotundatis vel applanatis, atris, ad superficiem stromatis seriatim aggregatis, sæpe tectis; ascis cylindraceis, pedicellatis, p. spor. 16 μ . longis, 18 μ . latis, octosporis; sporidiis distichis, unilocularibus, ovoideis, hyalinis, dein obscurioribus, biguttulatis, 6 \times 3.

Hab. parasitica in lignis a Nummularia spec. tectis et, ut videtur, eiusdem stromata occupans, S. Leopoldo Amer. Merid.

Sect. 3. Hyalodidymæ.

DIMEROSPORIUM Fuck. — Syll. I p. 51, IX p. 401, XI p. 257, XIV p. 466, XVI p. 408.

1. **Dimerosporium Andiræ** P. Henn. Fungi S. Paulenses I, in Hedw. 1801 1902, p. 107 (nec *D. meliolicola* Speg.). — Peritheciis sparsis in mycelio *Meliolæ* superficialibus, minutis, subglobosis, atris, basi hyphis repentibus, fuscis circumdati, contextu membranaceo, astomis, 60-70 μ . diam.; ascis clavatis, apice obtuse rotundatis, tunicatis, basi attenuatis, 20-30 \times 8-12, octosporis; sporidiis subdistichis, oblonge ovoideis v. fusoideis, 1-septatis, constrictis, 6-8 \times 3,5-4,5. hyalinis.

Hab. in foliis Andiræ spec., prope S. Paulo Brasiliæ.

2. **Dimerosporium Litseæ** P. Henn. in Engl. Jahrb. 1902, p. XXXII. 1902

p. 42. — *Mycelio epiphylllo*, crustaceo-effuso, atro; hyphis repentibus, ramosis, septatis; peritheciis sparsis, hemisphaericis, astomis, membranaceo-carbonaceis, 200-300 μ . diametro; ascis oblonge ovoideis vel clavatis, apice rotundatis, tunicatis, basi attenuatis, 4-8-sporis, 45-65 \times 26-35; sporidiis subdistichis oblongis, medio 1-septatis, paulo constrictis, utrinque obtusis, 30-35 \times 11-14, hyalinis.

Hab. in foliis *Litsea glauca* in prov. Awa Japoniæ (S. KUSANO).

3. *Dimerosporium cantareirens* Henn. in Hedw. 1902, pag. 298. — 1803
Peritheciis hypophyllis, gregariis vel epiphyllis sparsis, lenticulari-hemisphaericis, medio depressis, membranaceo-cellulosis, atris, hyphis repentibus, subsimplicibus septatis, 3-4 μ . cr., atro-fuscis circumdatis; conidiis ellipsoideis, utrinque obtuse rotundatis, atro-fuscis, medio 1-septatis, valde constrictis, granulosis, 12-16 \times 6-8, cellulis subglobosis; ascis oblonge ovoideis, apice rotundatis, tunicatis, basi curvulis, octosporis 1-septatis, paulo constrictis, hyalino-fusculis, 13-16 \times 4.5, 5.

Hab. in foliis *Myrsines* cujusdam, S. Paulo Brasiliæ.

4. *Dimerosporium vestitum* Earle in New York Bot. Gard. 1902, 1804
p. 338. — Cæspitulis epiphyllis, nigris, effusis, sæpe confluentibus ex hyphis tenuibus, pallide brunneis, 3-4 μ . cr., compositis; conidiis subglobosis, sarciniformibus, 4-cellularibus, opacis, nigris, breve stipitatis, circ. 20 μ .; peritheciis nigro-brunneis, 85-100 μ . diam, contextu celluloso, ex hyphis brunneis, continuis vel parce septatis, 100-200 \times 4-5 oriundis; ascis late clavatis, 35-40 \times 8-10, paraphysibus filiformibus; sporidiis distichis vel irregulariter dispositis, constricto-ovatis, inæqualiter septatis, hyalinis, 3-guttulatis, 8 \times 3-4.

Hab. in foliis vivis *Baccharidis glomerulifloræ*, Manatee Florida, Amer. bor. — Stat. conid. videtur affinis *Sarcinellæ heterosporæ*.

5. *Dimerosporium Gnaphalii* Henn. in Hedw. 1902, p. 297. — Ma- 1905
culis fusculis, rotundatis vel effusis; peritheciis sparsis vel gregariis epiphyllis, aterrimis, membranaceis, subhemisphaericis, rugulosis, pertusis, 70-100 μ . diam.; hyphis atro-fuscis ramosis, septatis, 3-4 μ . crassis, circumdatis; ascis clavatis, apice obtusis tunicatis, basi attenuatis-curvatis, 25-33 \times 6-8, octosporis; paraphysibus filiformibus, hyalinis 2 μ . crassis; sporidiis subdistichis, fuscoideis vel subclavatis, apice vel utrinque subacutiusculis, rectis, medio 1-septatis hyalinis, 7-8 \times 2.5-3.

Hab. in foliis *Gnaphalii* spec., in horto botanico et Pedra Branca, S. Paulo Brasilæ.

6. **Dimerosporium Clidemniæ** P. Henn. Fungi Amaz. IV, in Hedw. 1803
1905, p. 59. — Maculis mycelii stellato-radiatis vel rotundatis suberustaceis, atris; hyphis variis usque ad 10 μ . crassis repentibus, atro-brunneis, pseudopodiis alternis ovoideis, atro-fuscis, ca. 20-25 \times 10-14; peritheciis sparsis v. gregariis, ovoideis, membranaceo-cellulosis, atro-brunneis perforatis, ca. 80-100 μ .; ascis fasciculatis, paraphysatis, clavatis, apice tunicatis, rotundatis, 25-40 \times 6-8; sporidiis subdistichis, clavatis, rectis vel curvulis, medio 1-septatis paulo constrictis, hyalinis, 8-10 \times 3-3 $\frac{1}{2}$.

Hab. in foliis *Clidemniæ* tibiifoliæ, Manáos Rio, Negro Brasilæ.

7. **Dimerosporium cordicolum** P. Henn. Fungi Amaz. III, 1904, p. 355. 1807
— Peritheciis epiphyllis, gregariis vel subsparis, subglobosis vel ovoideis, membranaceo-cellulosis, atris ca. 50-80 μ .; hyphis repentibus fuscis, ramosis, septatis, 3-3 $\frac{1}{2}$ μ . crassis; ascis clavatis, rotundatis, 8-sporis, 25-35 \times 14-17; sporidiis conglobatis v. subdistichis, ovoideis vel ellipsoideis, utrinque obtusis, medio 1-septatis valde constrictis, hyalinis, 12-15 \times 7-8.

Hab. in foliis *Cordia*, Rio Juruá, Juruá-Miry Amazoniæ.

8. **Dimerosporium amazonicum** P. Henn. Fungi Amaz. III, 1904, 1808
p. 355, cum icon. — Maculis mycelii epiphyllis rotundatis, atris, suberustaceis; hyphis repentibus fuscis-ramosis, sæpe confluentibus, conidiis fusoides vel clavatis, stipitatis, 2-5-septatis, fuscidulis, 30-40 \times 8-10; peritheciis sparsis vel aggregatis, ovoideis vel subellipsoideis, atris, poro pertusis, contextu membranaceo-celluloso fusco-brunneo, ca. 80-100 μ . diam.; ascis fasciculatis, clavatis, apice obtusis, 8-sporis, 30-40 \times 8-10; paraphysibus filiformibus, hyalinis ca. 1 $\frac{1}{2}$ -2 μ . crassis; sporidiis oblique monostichis v. distichis, clavatis, 3-guttulatis, medio 1-septatis, subconstrictis, hyalino-evanescentibus, 8-10 \times 3-4.

Hab. in foliis *Bignoniaceæ* cuiusd., Iquitos, Rio Amazonas Perù.

9. **Dimerosporium Synapheæ** P. Henn. F. Australiæ occid. I, in Hedw. 1809
1901, p. 96. — Syll. XVI, p. 1124 (nomen). — Mycelio crustaceo, subpulvinato, atro; hyphis septatis, castaneis, brevibus; conidiis subovoideis, 1-septatis, atro-castaneis, 10-13 \times 10; peritheciis lenticularibus, depressis, atris; ascis clavatis, apice obtuse rotundatis, tunicatis, basi attenuatis, curvulis, octosporis, 40-50 \times 14-20; spori-

diis distichis vel conglobatis, oblonge ovoideis 1-septatis, haud constrictis, hyalino-fuscidulis, $10-15 \approx 6-7$.

Hab. in foliis vivis Synapheæ polymorphæ, Perth Australiæ occid.

10. *Dimerosporium Manihotis* P. Henn. Fungi Amaz. III, 1904, p. 354. 1810

(Hedwigia). — Maculis epiphyllis, gregariis, angulatis, flavidis; peritheciis hypophyllis in caespitulis gregariis rotundato angulatis v. confluentibus, ovoideis, atris, apice subpapillatis, $60-80 \mu$, contextu celluloso, brunneo-fusco, basi hyphis ramosis, brunneolis, $3-5 \mu$; ascis subclavatis, apice tunicatis, rotundatis vel subacutiusculis, curvulis, 8-sporis, $28-35 \approx 8-10$; sporidiis subdistichis v. conglobatis, oblonge ovoideis vel clavatis, obtusis, medio 1-septatis, vix constrictis, hyalino-cyanescentibus, $9-13 \approx 3-3\frac{1}{2}$.

Hab. in foliis Manihot, Rio Jurua Fortelesa Amazoniæ.

11. *Dimerosporium hyptidicolum* P. Henn. Fungi Amaz. III, 1904, 1811

p. 354. — Maculis mycelii epiphyllis atris, effusis; peritheciis sparsis vel aggregatis, subglobosis, obtusis, atro-fuscis, ca. $80-100 \mu$ diam., basis hyphis repentibus, septatis, fuscis; ascis oblonge clavatis, obtusis, tunicatis, 8-sporis, ca. $25-35 \approx 6-10$; sporidiis oblique monostichis vel subdistichis, ovoideis v. clavatis, obtusis, medio 1-septatis vix constrictis, hyalino-cyanescentibus, $7-10 \approx 3\frac{1}{2}-4$.

Hab. in foliis Hyptidis, Rio Negro, Manaos Amazoniæ.

12. *Dimerosporium? bauhiniacolum* P. Henn. Fungi Amaz. III, 1904, 1812

p. 355. — Mycelio radiato effuso hypophyllo arachnoideo, atro-fusco; hyphis repentibus, ramosis, fusco-brunneis, $3-5 \mu$. crassis; conidiis variiformibus, ellipsoideis, ovoideis vel oblongis, 2-4-septatis, $15-30 \approx 6-10$; peritheciis sparsis v. aggregatis, ovoideis v. subglobosis celluloso-membranaceis, fusco-brunneis, ca. $100-120 \approx 80-100 \mu$; ascis clavatis, apice tunicatis, rotundatis, basi sæpe curvulo-substipitatis, 8-sporis, $50-60 \approx 20-25$; sporidiis subdistichis v. conglobatis oblonge ovoideis vel ellipsoideis, obtusis, medio 1-septatis, constrictis, hyalinis, $20-26 \approx 7-10$.

Hab. in foliis Bauhinia, Rio Jurua Jurua-Miry Amazoniæ.

NEOREHMIA v. Höhnelt, Fragmente zur Mycologie 1903, p. 1 (Etym. ab insigni mycologo et lichenologo doctore HENRICO REHM). — Perithecia sessilia, libera, globosa, subcarnosa, ex olivaceo nigrescentia, pilis rigidis ornata, ostiolo nullo v. obsoleto. Paraphyses parvæ; asci clavati, octospori; sporidia hyalina, e cellulis binis, globosis, facile jamque ipso in asco se separantibus formata.

1. *Neorehmia ceratophora* v. Höhnelt l. c. — Peritheciis sparsis, globosis, minutis, 120–160 μ . latis, ex olivaceo nigrescentibus, subcarnosis, tenuibus, ubique pilis non septatis, rigidis, brevibus, 20–25 \times 2–3, vel simplicibus vel apice magis minusve denticulatis vel ramosis obtectis; ostiolo nullo v. obsoleto; paraphysibus parvis, filiformibus; ascis tenuissimis, clavatis, 40–45 \times 4–6 octosporis; sporidiis subdistichis vel oblique monostichis, oblongis, 4 \times 2, hyalinis, e cellulibinis, globosis, facile jamque ipso in asco se separantibus formatis.

Hab. in ligno putrido Carpini?, Viehöferin Austriæ inferioris.

Sect. 4. Phæodidymæ.

DIMERIUM Sacc. et Syd. — Syll. XVI p. 410 (ut subgenus) (Etym. *dis* bis et *meros* pars, ob sporidia bilocularia). — A *Dimerosporio* differt sporidiis coloratis nec hyalinis. — Huc spectant plures species jam huic postremo generi relatæ, nempe: *Dimerium Fumago* (Niessl), *D. Psilostomatis* (Thüm.), *D. oligotrichum* (Mont.), *D. Langloisii* (E. et M.), *D. Ulei* (Wint.), *D. imperspicuum* (Speg.), *D. latericium* (Speg.), *D. Passifloræ* (Pat.), *D. Monnicæ* (Pat.), *D. Richardii* (Thüm.), *D. Barnadesiæ* (Pat.), *D. spectabile* (Pat.), *D. moniliferum* (Pat.), *D. Labiatarum* (Pat.), *D. Gilgianum* (P. Henn.), *D. secedens* Sacc., *D. minutum* (Pat.), *D. Magnoliæ* (T. et E.), *D. baccharidicolum* (P. Henn.), *D. Englerianum* (P. Henn.), *D. Forsteroniæ* (P. Henn.), *D. hamatum* P. et Sacc., *D. pangerangense* (P. Henn.), *D. tasmanicum* (Masse), *D. occultum* (Rac.).

1. *Dimerium orbiculatum* (Mc Alp.) Sacc. et D. Sacc. *Dimerosporium orbiculatum* M. Alp. in The Linn. Soc. of N. S. Wales, 1903, pag. 97. — Maculis numerosis, orbicularibus, fuligineo-nigris, epiphyllis, interdum confluentibus, 2–3 mm. diam; hyphis pallide olivaceis, circ. 7 μ . cr., ramulosis; conidiis concoloribus, 1-septatis, paullo constrictis, 15–17 \times 8–9, pucciniæformibus; ascis clavatis, sessilibus, superne rotundatis, octosporis, 95–105 \times 24–28; paraphysibus hyalinis, filiformibus, superne ramosis, asco subæquilongis; sporidiis distichis ad basim monostichis, olivaceis, subovalibus, 1-septatis, superne rotundatis, 30–35 \times 10–11, cellula superiori crassiori.

Hab. in foliis vivis Grevilleæ Victoriæ in Victoria Australiæ.

2. *Dimerium erysiphinum* (P. Henn.) Sacc. et D. Sacc. *Dimerosporium erysiphinum* P. Henn. in Ergebn. der Kunene Sambesi Expedition. p. 164 (1902). — Mycelio hypophyllo effuso, radiante albo,

subsericeo, submembranaceo, dein flavo-ferrugineo, e filis septatis, ramosis, primo hyalinis dein fuscescentibus, ca. 5-18 μ . cr.; peritheciis aggregatis, subglobosis, astomis, atro-brunneis, ca. 150-180 μ . diam.; ascis ovoideis v. subclavatis, vertice crasse tunicatis, basi curvatis, 65-75 \times 30-45, 4-8-sporis, subdistichis v. conglobatis oblongis v. ovoideis subclavatis, rectis v. curvulis, utrinque rotundatis, medio 1-septatis vix constrictis, flavo-fuscidulis, 30-45 \times 14-18.

Hab. in foliis Copaiferæ Baumianæ, Kusi prope Likise Afr. austr.

3. *Dimerium parasiticum* (Starb.) Sacc. et D. Sacc. *Dimerosporium* 1816
parasiticum Starb. in Arkiv. för Botan. 1904, Band 2, p. 11. — Mycelio in hyphis hyphopodiis præditis melioloideis partim parasitante, subiculum membranaceum, orbiculariter expansum, vage determinatum, griseo-fuscum formante, hyphis ramulosis, septatis, fere hyalinis 2,5-3 μ . latis composito; peritheciis hinc inde sparsis, paullum aggregatis, appendicibus longe repentibus, fuscis, ramosis, septatis, circa 5 μ . cr. ornatis, globulosis v. ovato-globulosis, textura membranacea nigricantibus, 65-75 μ . diam. vel 70 \times 44; ascis paucis, sessilibus, ovoideis vel ovoideo-oblongatis, sursum incrassatis, 32-40 \times 15-18; sporidiis octonis, conglobatis, clavulatis, medio septatis, non constrictis, sursum obtusatis, deorsum acutiuscule attenuatis, primo hyalinis, denique fuscescentibus, 17-21 \times 4-5; conidiis ex hyphis mycelii orientibus, clavulato-oblongis, 1-3-septatis, plerumque longe et hyaline pedicellatis, fuscis, usque ad 19 \times 6,5 (25 μ . long. cum append.).

Hab. in silva primæva Poaia, Matto-Grosso Brasilæ (LINDMAN). — *D. imperspicuum* Speg. sporidiis elliptico-subovatis aliis notis exceptis differt.

4. *Dimerium paulense* (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1817
paulense Henn. in Hedw. 1902, pag. 297. — Maculis fuscidulis indeterminatis vel obsoletis; peritheciis amphigenis, sparse gregaris, lenticularibus, atro-membranaceis, cellulosis, medio depressis perforatis, 160-200 μ . diam.; hyphis fasciculatis, 3-4 μ . cr., septatis, fusco-atris, radiantibus circumdatis; conidiis subclavatis, rectis v. curvulis, ca. 4-5-septatis v. ovoideo-incurvatis, 12-15 \times 10-12, 5-6-septatis, fusco-atris; ascis clavatis, apice obtusis, crasse tunicatis, brevissime stipitatis, octosporis, 35-45 \times 10-14; sporidiis fusoideis vel subclavatis, apice acutiusculis, medio 1-septatis, constrictis, chlorino-olivaceis, 15-20 \times 3-4.

Hab. in foliis *Baccharidis* spec., Serra da Cantareira, pr. S. Paulo Brasilæ.

5. *Dimerium gardeniicolum* (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1818
gardeniicola P. Henn. F. japon. IV, in Bot. Jahrbücher v. XXXI, 1902, p. 739. — Amphigenum; mycelio atro-brunneo ex hyphis repentibus, ramosis, 3,5-5 μ . cr., pseudopodiis subalternis, ovoideis vel subglobosis, atro-fuscis, 8-12 \times 7-10; peritheciis ovoideis, membranaceis, apice papillatis, pertusis, levibus, viridulo-atris, 1-2 ascigeris, 45-60 \times 40-50, basi setulis simplicibus, atris, 60-120 \times 4-6 circumdatis; ascis ovoideis, obtusis, 20-35 \times 20-30, aparaphysatis, octosporis; sporidiis conglobatis, ellipsoideis 1-septatis valde constrictis, 14-18 \times 7-9, olivaceis v. viridulo-atris, cellulis subglobosis.

Hab. in foliis *Gardeniæ floridæ*, Tosa Japoniæ.

6. *Dimerium Macarangæ* (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1819
Macarangæ P. Henn. in Engl. Bot. Jahrb. 1903, pag. 45. — Mycelio hypophyllo, effuso, atro; hyphis repentibus, fuscis, ramosis, septatis, 3-4 μ . cr.; conidiis oblonge fusoides, flavofuscis, continuis, 2-3-guttulatis, 8-12 \times 2,5-3; peritheciis sparsis vel gregariis, ovoideis, ca. 60-80 μ . diam., fusco-membranaceis, pertusis; ascis clavatis, apice rotundatis, tunicatis, basi attenuato-subpedicellatis, octosporis, aparaphysatis, 45-55 \times 13-17; sporidiis subdistichis, clavatis vel subfusoides, utrinque obtusis, medio 1-septatis, constrictis, 2-4-guttulatis, læte brunneis, 10-15 \times 3,5-4.

Hab. in foliis *Macarangæ* spec., Ost Usambara Africae orient. (ENGLER).

7. *Dimerium Saccardoanum* P. Henn. Fungi Amaz. III, 1904, p. 356, 1820
 cum icon. — Maculis mycelii plerumque epiphyllis, gregarie sparsis, rotundato-angulatis, atris, 1-2 mm. diam. interdum confluentibus; peritheciis aggregatis vel subsparsis, subglobosis, sicco collapsis, atris, rugulosis, membranaceo-cellulosis, ca. 70-110 μ . diam., basi hyphis ramosis, fuscis, 3-5 μ . crassis; ascis clavatis, apice rotundatis, subtunicatis, 8-sporis, 40-50 \times 7-10, paraphysatis; sporidiis subdistichis v. oblique monostichis, clavatis, rectis v. subcurvulis, medio 1-septatis, constrictis, brunneo-fuscis, 10-14 \times 3 $\frac{1}{2}$ -4.

Hab. in foliis *Solan*i, Leticia, Rio Amazonas Perù.

8. *Dimerium olivaceum* Syd. Ann. Mycol. 1904, p. 169. — Mycelio 1821
 amphigeno, repente, ex hyphis brunneis septatis simplicibus usque 200 μ . longis et ca. 5 μ . crassis composito; peritheciis globosis, gregariis, atris, 100-210 μ . diam., astomis, parte inferiore hyphis mycelii obsessis; conidiis 1-4-septatis, brunneis, variabilibus; ascis

cylindræo-clavatis, apice rotundatis, $48-62 \approx 9-16 \mu$., breviter stipitatis, octosporis; sporidiis distichis vel oblique monostichis, oblongo-ellipsoideis, utrinque rotundatis, medio 1-septatis, non constrictis, initio hyalinis, mox olivaceo-virescentibus, tandem olivaceo-brunnescentibus, $11-18 \approx 5\frac{1}{2}-9$.

Hab. in foliis vivis *Cynoctoni nummulariifolii* in Andibus Valdivianis (T. W. NEGER).

9. *Dimerium Lepidagathis* (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1822

Lepidagathis P. Henn. in *Ergebn. der Kunene Sambesi Expedit.* p. 164 (1902). — Peritheciis gregariis superficialibus minutis, lenticularibus v. subglobosis membranaceis, atris, ca. $60-100 \mu$. diam., basi hyphis atris setulosis repentibus $3,5-5 \mu$. cr. conidiophoris cinctis; conidiis ovoideis, fuscis, 1-septatis; ascis clavatis, apice obtusis, $30-40 \approx 12-15$, octosporis, paraphysatis; sporidiis oblonge ovoideis, medio 1-septatis, vix constrictis, $12-15 \approx 3,5-4$, olivaceo-fuscis.

Hab. in foliis *Lepidagathis macrochilæ* inter Longa et Lazingua Afr. austr.

10. *Dimerium Scheffleri* (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1823

Scheffleri P. Henn. *Fungi Afr. orient.* II, in *Bot. Jahrb.* XXVIII, p. 37. — Epiphyllum, gregarium, atrum, pulvinatum; hyphis repentibus, effusis, $3-5 \mu$. cr., atro-brunneis; peritheciis subglobosis dein collabentibus, atris, astomis, $120-160 \mu$. diam.; ascis clavatis, obtusis, octosporis, $50-70 \approx 9-12$; sporidiis subdistichis vel monostichis, ellipsoideo-ovoides, medio 1-septatis vix constrictis, atro-brunneis, $11-15 \approx 4-4,5$.

Hab. in foliis *Loranthi Schelei*, Usambara Afr. orient. (SCHEFFLER).

11. *Dimerium microcarpum* (Starb.) Sacc. et D. Sacc. *Dimerosporium* 1824

microcarpum Starb. in *Arkiv. för Botan.* 1904, Band 2, pag. 11, fig. 22-23. — Peritheciis mycelio hyalino v. interdum obscuriore in *Meliola* parasitante passim insidentibus, sphaeroideis, astomis, tenuiter membranaceis, cellulis polygonis, minutis, $75-100 \mu$. diam.; ascis oblongatis vel cylindræo-oblongatis, nodulosim stipitatis, sursum rotundatis, $26-28 \approx 8-11,5$; sporidiis octonis, conglobatis vel fere distichis, oblongato-ovoides, medio septatis, constrictis, utrinque rotundatis, loculo superiore cylindræo-rhomboideo, brevior et latior, inferiore cylindrico, primo hyalinis, deinde olivaceis, plerumque bi-guttulatis, $9-10 \approx 4-5$; paraphysibus nullis.

Hab. in silva primæva parasitice in *Meliola mattogrossensi*, Poaia, Matto-Grosso Brasiliæ (LINDMAN).

12. *Dimerium bactridicolum* P. Henn. Fungi Amaz. IV, in Hedw. 1825 1903, p. 59. — Peritheciis hypophyllis in mycelio atrofusco *Meliolæ*, subglobosis, basi hyphis repentibus atrofusis circumdati, ca. 80-100 μ . diam., contextu membranaceo-celluloso, brunneo-fusco; ascis clavatis, apice rotundatis subtunicatis, 8-sporis, 30-40 \times 7-10; paraphysibus basi fasciculatis vel ramosis, filiformibus, hyalinis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis, ovoideo-clavatis, utrinque obtusis, medio 1-septatis, paulo constrictis, 2-guttulatis, primo hyalinis, dein brunneis, 8-11 \times 3 $\frac{1}{2}$ -4.

Hab. in foliis *Bactridis* in *Meliola iquitosensi* parasitica, Iquitos, Perù.

PARODIELLA Speg. — Syll. I p. 717, IX p. 409, XI p. 260, XIV p. 469, XVI p. 412.

1. *Parodiella baccharidicola* P. Henn. Fungi Amaz. III, Hedw. 1904, 1826 pag. 359. — Peritheciis epiphyllis gregariis, plerumque paginam totam occupantibus, subglobosis vel ovoideis, obtusis, sicco collabentibus, atris, subrugulosis, ca. 150-180 μ . diam., basi hyphis paucis, fuscidulis; ascis clavatis, apice rotundatis, 8-sporis, 80-100 \times 17-19; paraphysibus hyalinis, mycelioides, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis, oblonge fusoides vel ellipsoideis, curvulis vel rectis, utrinque obtusis, plerumque 2-guttulatis, medio 1-septatis paulo constrictis, 18-25 \times 7-9, olivaceo-fuscis.

Hab. in foliis *Baccharidis* spec. Tarapoto, Perù.

2. *Parodiella Bauhiniarum* P. Henn. Fungi Amaz. III, Hedw. 1904, 1827 p. 359, c. ic. — Maculis mycelii subrotundatis angulatis v. effusis, atris, hypophyllis; peritheciis dense gregariis subovoideis, apice obtusis, sicco collabentibus, atris, subcoriaceo-membranaceis, subrugulosis, 80-110 μ . diam., basi hyphis sparsis, flavo-fuscidulis, ca. 3-4 μ . crassis circumdati; ascis late clavatis, apice tunicatis, rotundatis, 8-sporis, 35-50 \times 16-20; paraphysibus hyalinis, filiformibus, 1 $\frac{1}{2}$ -2 μ . crassis; sporidiis conglobatis vel subdistichis, ovoideis vel clavatis, rectis vel subcurvulis, obtusis, medio 1-septatis, constrictis, primo hyalinis dein olivaceo-atris, 15-22 \times 5-6.

Hab. in foliis *Bauhinie* longipetalæ et *Bauhinie* spec. Rio Juruá, Juruá-Miry Amazoniæ.

3. *Parodiella Negeriana* Syd. Ann. Myc. 1904, p. 169. — Peritheciis 1828

hypophyllis, sine maculis, gregariis. subinde magnam folii partem v. totam ejus superficiem æqualiter tegentibus, minutissimis, punctiformibus, atris; ascis globoso-ovatis, brevissime stipitatis, octosporis, $28-39 \times 19-31$; sporidiis tristichis, constricto-didymis, utrinque rotundatis, ex hyalino fuscis, $15-20 \times 6\frac{1}{2}-9$.

Hab. in foliis vivis Berberidis linearis, Chile (F. W. NEGER).

4. *Parodiella tarapotensis* P. Henn. Fungi Amaz. III, Hedw. 1904, 1829 p. 360. — Maculis mycelii hypophyllis, effusis, atris villosio-archnoideis; hyphis erectis v. repentibus, atro-fuscis, 3-5 μ . crassis, ramosis, septatis, pseudopodiis alternis v. oppositis, subovoideis v. clavulatis, ca. $10-20 \times 10$; conidiis clavatis v. fuscoideis 3-4-septatis, flavo-brunneis, ca. 30×5 ; peritheciis gregariis, minutis, subovoideis, apice subpapillatis, atris, parenchymatico-cellulosis, ca. 70-110 μ .; ascis clavatis, apice crasse tunicatis, rotundatis, basi subpedicellatis, curvulis, 8-sporis, $60-80 \times 18-20$; sporidiis conglobatis v. subdistichis, hyalino- vel flavido-fusculis, clavatis, 2-guttulatis, medio deinde 1-septatis, an. constrictis?, $20-26 \times 8-9$.

Hab. in foliis Pithecolobii Saman, Tarapoto Rio Huallaga Perù. — «An hæc et sequens potius *Dimerii* species?».

5. *Parodiella setulosa* P. Henn. Fungi Amaz. III, Hedw. 1904, p. 357 1830 cum icon. — Maculis mycelii epiphyllis gregarie sparsis vel confluentibus, minutis, aterrimis crustaceis; setulis rigidis erectis; hyphis ramosis, torulosis, confluentibus, olivaceo-fuscis, interdum subviridulis, ca. 4-7 μ . crassis; setulis atro-fuscis, acutis v. obtusis usque ad 300×10 ; peritheciis aggregatis vel sparsis, ovoideis, fusco-olivaceis, membranaceo-cellulosis, obtusis, 70-100 \times 60-80; ascis oblonge ovoideis vel subellipsoideis, vertice crasse tunicatis, rotundatis, 8-sporis, $50-60 \times 20-25$; sporidiis conglobatis oblonge ovoideis vel ellipsoideis, primo hyalinis, 2-guttulatis, dein medio 1-septatis, constrictiusculis, fusco-brunneolis, $20-25 \times 8-11$.

Hab. in foliis Olyrae, Tarapoto, Rio Huallaga Perù.

6. *Parodiella? manaosensis* P. Henn. Fungi Amaz. III, Hedw. 1904, 1831 p. 358 c. ic. — Maculis fuscis rotundatis vel confluentibus; peritheciis hypophyllis gregariis, ovoideis, rugulosis; atris, subcarbonaceo-coriaceis, ca. 180-220 μ .; hyphis repentibus, ramosis, fusco-brunneis, 5-9 μ . crassis; conidiis oblonge clavatis vel fuscoideis, primo flavidis, 1-septatis, dein læte brunneis, 3-septatis $40-60 \times 15-20$; ascis clavatis, crasse tunicatis rotundatis, 8-sporis, $120-150 \times 35-45$; sporidiis conglobatis vel subdistichis, oblonge clava-

tis utrinque rotundatis, primo flavis dein læte brunneis, continuis (an semper?) 40-50 \approx 13-15.

Hab. in foliis Solanaceæ? cujusdam, Rio Negro, Manáos Amazoniæ.

Sect. 5. Hyalophragmiæ.

ZUKALIA Sacc. — Syll. IX p. 431, XI p. 268, XVI p. 416.

1. **Zukalia Stuhlmanniana** P. Henn. in Engl. Bot. Jahrb. 1903, p. 46. 1892

— Mycelio crustaceo effuso, atro, paginam foliorum omnino obducente; hyphis repentibus, fuscis, ramosis, septatis, 3-6 μ . cr.; conidiis oblonge ellipsoideis, bi-guttulatis, continuis, 10-17 \approx 4-5; peritheciis sparsis vel gregariis subhemisphæricis vel subglobosis 80-100 μ . diam., setulis 5-8, rigidis, suberectis, atris, acutis, 80-250 \approx 3-5 vestitis, contextu atro-celluloso; ascis clavatis, apice rotundatis, crasse tunicatis, 35-45 \approx 10-13, octosporis, aparaphysatis; sporidiis subdistichis vel conglobatis, oblonge cylindraceis, utrinque obtuse rotundatis, crasse 3-septatis, 13-16 \approx 3,5-7, hyalinis.

Hab. in foliis Cocoës nuciferæ, Phœnicis dactyliferæ, Revenalæ madagascariensis, Dar-es-Salam, Zanzibar Africae orient. (STUHLMANN).

2. **Zukalia juruana** P. Henn. Fungi Amaz. III, 1904, p. 367 cum 1893

icone (Hedwigia). — Peritheciis epiphyllis membranaceis, globosis, obtusis, atro-cellulosis, ca. 80-120 μ ., basi mycelio fusco septato, effuso; ascis fasciculatis, clavatis, apice tunicatis, rotundato-obtusis, basi attenuatis, 8-sporis; paraphysibus filiformibus, flexuosis, hyalinis, guttulatis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis v. subdistichis, subclavatis, obtusis, tunicatis, 2-septatis, grosse 3-guttulatis, hyalinis, 9-10 \approx 3.

Hab. in foliis Hyptidis, Humaytha, Rio Juruá Amazoniæ. 1894

3. **Zukalia sexspora** Starb. in Arkiv. för Botan. 1904, Band 2, p. 10.

— Peritheciis minutis, mycelio evanido hyphopodiophoro insidentibus, membranaceis, astomis, atratis, circ. 100 μ . diam.; setis nullis; ascis obovatis vel late cylindraceis, nodoso-stipitatis, sursum rotundato-tunicatis, 28-38 \approx 6,5-9; sporidiis senis, conglobatis v. fere distichis, oblongatis vel clavulato-oblongatis, utrinque obtusatis, primo 4-guttatis, medio constrictulis, denique spurie 3-septatis, hyalinis, 11,5-12,5 \approx 4-5; paraphysibus latiusculis, hyalinis, guttulatis.

Hab. in foliis in silva primæva Poaia, Matto Grosso Brasilæ (LINDMAN).

PERISPORIOPSIS P. Henn. in Hedw. 1904, p. 83 (Etym. a *Perisporio*, cui affinis). — Perithecia ovoidea, perforata, membranacea, subatra, in mycelio fibroso, subcrustaceo, maculiformi, fusco. Asci clavati, octospori aparaphysati. Sporidia oblonge fuscoidea 3-7-septata, subhyalino-flavescentia. — *Perisporio* affinis, sed sporidiis subpallidis haud fatiscentibus. Forte ad hoc genus spectat *Apio-sporium brasiliense* Noack — Syll. XVI, p. 408.

1. **Perisporiopsis Struthanthi** P. Henn l. c. — Mycelio effuso, fusco 1835 maculiformi; hyphis septatis, ramosis, fusco-brunneis, 4-8 μ . crassis; peritheciis superficialibus submembranaceis sparsis vel gregariis, ovoideis, vertice obtusis, pertusis, subviolascentibus, subpilosis 250-300 \times 200-250, contextu parenchymatico, atro-fusco; ascis late clavatis, apice crasse tunicatis, vix pedicellatis, octosporis, 80-140 \times 25-40; sporidiis subdistichis v. oblique monostichis, oblonge fuscoideis, utrinque obtusiusculis, primo 1-3 deinde 7-septatis, haud constrictis, hyalinis vel subflavidulis, 60-65 \times 12-15.

Hab. in foliis *Struthanthi* spec. Serra dos Orgaos, Rio de Janeiro Brasilæ (C. ULB).

Sect. 6. Phæophragmiæ.

PERISPORIUM Fr. — Syll. I p. 55, IX p. 412, XI p. 260.

1. **Perisporium mendozanum** Speg. in An. Soc. Cient. Arg. 1899, 1836 p. 227. — Peritheciis superficialibus, subiculo cinerescente pulverulento araneosulo cinctis, semiglobosis, atris, 500-750 μ . diam., 300-500 μ . alt., astomis, levibus, glabris, fragilibus, contextu imperspicuo; ascis cylindraceis 140-150 \times 9-10, apice obtuse rotundatis, basi breviter attenuato-pedicellatis, aparaphysatis, octosporis; sporidiis monostichis, cylindraceis, rectis vel curvulis, 18-20 \times 5-8, utrinque obtusis, 3-septatis, ad septa valide constrictis, loculis demum secedentibus, obscure fuliginis.

Hab. ad spinas *Opuntia* aoracanthæ, in deserto circa Mendozam Argentina. — Species eximia a genere ascis cylindraceis nonnihil recedens.

2. **Perisporium Myristicæ** P. Henn. F. javanici novi, in Hedw. 1902, 1837 p. 141. — Cæspitulis pulvinato-subhemisphæricis v. sublenticula-

ribus, rugoso-verrucosis, atris, ca. 1-2 mm. diam., ex hyphis peritheciisque aggregatis constantibus; hyphis fuscis septatis 3-5 μ . cr. v. moniliformi-torulosis, atro-fuscis, 4-5 μ . diam.; peritheciis membranaceis, subglobosis, pertusis 50-80 μ . diam.; ascis ovoideis v. oblonge ellipsoideis, haud stipitatis, apice rotundatis, octosporis, 20-30 \times 9-13; sporidiis conglobatis, subclavatis vel subfusoides, castaneis, 3-septatis, constrictis, utrinque obtusis, 10-15 \times 3,5-4.

Hab. in foliis vivis *Myristicæ* spec., Buitenzorg Javæ. — Vita parasitica ascisque sessilibus a generis typo recedit, hinc in subgenus proprium (*Perisporiella* P. Henn.) potius locanda species.

PERISPORINA P. Henn. Fungi Amaz. III, 1904, pag. 357 (Etym. a *Perisporio*, cui affinis). — Mycelium arachnoideo-floccosum, hyalino-fuscum. Perithecia subglobosa, membranacea, astoma. Asci ovoideo-clavati, 8-spori. Sporidia cylindraceo-clavata, 3-septata fusca. — *Meliolæ* et *Perisporio* affinis.

1. **Perisporina manaosensis** P. Henn. l. c. — Mycelio hypophyllo 1838 effuso, hyalino dein fusco, arachnoideo-floccoso; hyphis ramosis, septatis, hyalinis vel fuscis, 3-6 μ . crassis; conidiis fusoides, curvatis, utrinque acutis, 4-guttulatis vel 3-septatis, sparsis vel aggregatis, hyalinis 18-22 \times 5-6; peritheciis gregarie sparsis, subglobosis vel subovoideis, apice pertusis, membranaceo-cellulosis, atris, 150-180 μ .; ascis late clavatis, apice tunicatis rotundatis, 8-sporis, 80-110 \times 30-40; sporidiis conglobatis, oblonge clavatis, apice applanatis vel subrotundatis, 2-septatis, vix constrictis, 60-80 \times 10-12 μ ., fuscidulis.

Hab. in foliis Leguminosæ, Manáos Rio Negro Amazoniæ. 1839

2. **Perisporina Rehmii** (Syd.) Sacc. et D. Sacc. *Apiosporium Rehmii* Sydow in Rehm Ascom. exs. n. 1573, Ann mycol. 1904, p. 520. — Peritheciis tenuiter parenchymaticis, brunneolis, 150 μ . alt., 120 μ . lat., levibus, mycelio brunneo insidentibus; mycelii hyphis ramosis, septatis, breve articulatis, 5-7 rarius usque 20 μ . cr., apicibus sæpe ascendentibus, obtusis conidiophoris; conidiis oblongis 4-6-cellularibus, obtusis, rectis 20-25 \times 6; ascis ramoso-paraphysatis, ovato-clavatis, apice acutatis incrassatisque, breve stipitatis, 8-sporis, 70-80 \times 20-25; sporidiis oblongo-clavatis, apice rotundatis, 2-3-stichis, 2-4- dein 6-cellularibus, medio constrictulis, brunneis, 27-30 \times 10-12, strato mucoso 3 μ . cr. obductis.

Hab. in foliis (aliisque partibus?) *Baccharidis* discoloris, Serra do Itatiaia Rio de Janeiro, c. 1200 m. alt., Brasilæ.

MELIOLA Fr. emend. — Syll. I p. 60, IX p. 413, XI p. 260, XIV p. 470, XVI p. 413.

1. **Meliola Cookeana** Speg. — Syll. I, p. 65. — var. **Saccardoi** Syd. 1840
Ann. Mycol. 1904, p. 170. — Forma setis apice acutiusculis; sporidiis paulo majoribus, 40-48 \times 14-18. Adsunt hyphopodia copiosa tam mucronata quam capitata.

Hab. in foliis *Litseæ* mollis, in Andibus pr. Villarica, Chile (F. W. NEGER). — forma **Duvauæ** Sacc. et Syd. l. c. — A præcedente var. differt subiculis parciore et præcipue hyphopodiis mucronatis rariore. In foliis vivis *Duvauæ* dependentis, Concepcion in Chile (F. W. NEGER).

2. **Meliola fusco-pulveracea** Rehm, Hedw. 1901, p. 162. — Maculis 1841
hypophyllis, dilutissime nigrescentibus, arachnoideis, circ. 5 mm. diam.; peritheciis gregariis, sessilibus, globosis, astomis, verruculosus, 60-90 μ . diam., ad basim hyphis radiantibus permultis, simplicibus, rectis, interdum undulatis, obtusis, fuscis, septatis, raro breviter conjugatis, 300-600 \times 5, obsessis; hyphopodiis et setis plane deficientibus; ascis evanidis; sporidiis oblongis vel clavulatis, obtusis (2)-3-septatis, cellula suprema interdum majore, fusca, episorio crasse verruculoso, ad septa subconstrictis, 21-30 \times 9.

Hab. ad folia fruticis, Ouro Preto in Brasilia (ULE).

3. **Meliola buddleyicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 1842
p. 61. — Maculis mycelii epiphyllis, gregarie sparsis, rotundato-angulatis, atris, 1-2 mm. diam.; hyphis repentibus, atro-fuscis, septatis, ramosis, pseudopodiis alternis, ovoideis, 1-septatis, 12-18 \times 7-8 v. corniformibus, 15-22 \times 4-6, atrofusci; peritheciis sparsis vel cæspitosis, inermibus, subglobosis, sicco collabentibus, atrofusci, membranaceo-cellulosis, pertusis, 100-160; ascis ellipsoideis vel ovoideis 2-4-sporis; sporidiis cylindræis, utrinque obtusis, 4-septatis, constrictis, atrofusci 25-32 \times 7-10.

Hab. in foliis *Buddleæ* spec. Tarapoto, Rio Huallaga Brasiliæ.

4. **Meliola Lippiæ** Maublanc in Bull. Soc. Myc. de France 1903, fasc. 3, 1843
p. 291. — Mycelio maculas orbiculares, nigras, tomentosas efficiente, ex hyphis atrofusci 8-9 μ . crassis composito; hyphopodiis capitatis alternantibus, 26-30 \times 10-12, cellula superiore ovoidea; setis in mycelio numerosis, nigris, opacis, uncinatis, obtusis, 10 μ . crassis; peritheciis aggregatis, globosis, nigris, verruculosus, 125-220 μ . diam.; ascis obovatis bisporis; sporidiis ellipticis 4-septatis, ad septa constrictis, obtusis, atro-fuliginæis, 26-30 \times 12-14.

Hab. in pag. superiore foliorum *Lippia* sp. Dahomey Guineæ inf. (LE TESTU).

5. *Meliola iquitosensis* P. Henn. Fungi Amaz. III, 1904, p. 361 (Hedw.). 1844
— Maculis mycelii epiphyllis, rotundato-angulatis v. effuso-confluentibus, atris, suberustaceis, setulosis; hyphis repentibus, ramosissimis, brunneo-fuscis; conidiis fusoideis, 3-septatis, fuscis, 30-40 \times 5-7, setulis erectis apice obtuse rotundatis, fusco-atris usque 180 \times 4-5 μ ., septatis; peritheciis sparsis vel gregariis ovoideis apice rotundato-obtusis, fuscis, atro-cellulosis, 150-180, μ . ad basim setulis erectis, rigidis, obtusis, atris, septatis, 4-5 μ . crassis; ascis clavatis, tunicatis, subrotundatis, 8-sporis, 60-80 \times 18-25; sporidiis conglobatis cylindraceo-fusoideis, 3-septatis, fuscis, utrinque rotundatis, cellulis externis subpapillatis, pallidioribus, 25-35 \times 6-8.

Hab. in foliis *Palmae* ejusdam, Iquitos, Rio Amazonas Bras.

6. *Meliola Lagunculariæ* Earle in Muhlenbergia 1901, p. 11. — Am- 1845
phigena, maculas nigras, orbiculares 3,5 mm. diam. sæpe quoque ampliores formans; mycelii hyphis 4-6 μ . cr., obscure et remotiuscule septatis, laxis, pelliculam arete adhaerentem, tenuem formantibus; hyphopodiis capitatis, distantibus alternatis, divaricatis, tenuibus 12-16 μ . longis, capitulo oblongo, ovoideo, subinde subirregulari, 8-12 \times 6-7; hyphopodiis mucronatis, rarioribus, alternis vel oppositis, 16 \times 4, sursum tenuatis, apice obtuso; setis nullis; peritheciis sparsis, globosis, non collabentibus 150 μ . diam., ostiolo indistincto, superficie processibus conicis 12 \times 8-12 asperata; ascis mox evanescentibus (non observatis); sporidiis ovoideis, læte fuscis, aequaliter 4-septatis, utrinque rotundatis, 32 \times 12.

Hab. in foliis vivis *Lagunculariæ* racemosæ, Mayaguez, Portorico. — Affinis *Mel. glabræ*, a qua differt mycelio tenuissimo, hyphopodiis sporidiisque minoribus.

7. *Meliola manaosensis* P. Henn. Fungi Amaz. III, 1904, pag. 366, 1846
cum icone (Hedwigia). — Mycelio hypophyllo, effuso, radiato, crustaceo, aterrimo; hyphis ramosis, septatis, fuscis, 3-6 μ . crassis; hyphopodiis alternantibus, capitatis, ca. 20-30 \times 10-15, fusco-atris; conidiis fusoideis v. 5-septatis, atrofuscis, apice hyalino-papillatis 40-50 \times 7-8; peritheciis sparsis ovoideis vel subglobosis, vertice obtusis, ca. 240-280 μ . atris, basi setulis rigidis erectis atris, obtusis 250-300 \times 8 vestitis; ascis clavatis, apice tunicatis, subobtusis vel acutiusculis, basi breve stipitatis, 8-sporis, 80-100 \times 25-35; sporidiis subdistichis v. conglobatis, oblonge cylindraceis, 5-septatis, constrictis, 35-40 \times 10-12, fusco-atris.

Hab. in foliis Mauritiæ Martianæ, Manáos, Rio Negro Amazoniæ.

8. *Meliola sakawensis* P. Henn. in Hedw. 1904, p. 141. — Mycelio 1847
effuso paginam superiorem tegente, atro; tenui crustaceo; hyphis
repentibus, septatis, ramosis, atro-fuscis, hyphopodiis plerumque
alternantibus, ovoideis, 15-20 \times 10-15; peritheciis sparsis vel gre-
gariis, lenticularibus, atris, rugosis, setulis sparsis, septatis, apice
obtusis, atro-fuscis usque ad 250 μ . longis, 4-5 μ . crassis; ascis
ellipsoideis, plerumque bisporis, 30-40 \times 20-25; sporidiis cylindra-
ceis, utrinque rotundatis, 4-septatis, constrictis, atro-fuscis 20-33 \times
8-13.

Hab. in foliis Clerodendri trichostomi, Tosa, Sakawa-
machi Japoniæ (YOSHINAGA).

9. *Meliola larviformis* P. Henn. Fungi Amaz. III, 1904, p. 362. cum 1848
icon. (Hedwigia). — Maculis interdum hypophyllis, rotundatis gre-
gariis, ca. 1-2 mm. diam., atris; hyphis radiantibus, ramosis usque
ad 8 μ . crassis, atro-fuscis, pseudopodiis alternantibus, subovoideis,
stipitatis, ca. 20-25 \times 12-18, atro-fuscis; peritheciis sparsis vel sub-
aggregatis, lenticularibus, atris, 140-170 μ . diam., basi appendicu-
lis subcylindræis, larviformibus pallide fuscescentibus, concen-
trice subannulatis, apice curvatis, obscurioribus 60-100 \times 15-25;
ascis 2-sporis, ellipsoideis, ca. 35-55 \times 20-30; sporidiis cylindræis,
utrinque rotundatis, 4-septatis, constrictis, 30-45 \times 10-16, atris.

Hab. in foliis Lobeliæ cujssd., Rio Juruá et in foliis Aca-
lyphæ spec. Tarapoto, Perù.

10. *Meliola Stuhlmanniana* P. Henn. in Engl. Bot. Jahrb. 1903, p. 45. 1849
— Mycelio epiphylo, interdum hypophyllo, atro-violaceo, maculas
subcrustaceas, rotundatas, ambitu radiatas efficiente; hyphis re-
pentibus, atro-vinosis vel fuscis 4-8 μ . cr., septatis, ramosis, pseu-
dopodiis alternis subpedicellatis, ovoideis, ca. 15-20 \times 12-15; peri-
theciis subglobosis vel hemisphæricis, ca. 200-250 μ . diam., setulis
(5-10) rigidis, crassis, atro-vinosis, apice obtusis, haud septatis, ca.
100-150 \times 4-7, contextu cellulis rotundato-polyhedricis; ascis oblon-
ge ellipsoideis, utrinque obtusis rotundatis, 3-4-septatis, constrictis,
atro-fuscis 35-45 \times 13-18.

Hab. in foliis Acridocarpi, Dar-es-Salam, Zanzibar Africae
orient. (STUHMANN).

11. *Meliola juruana* P. Henn. Fungi Amaz. III, 1904, p. 365 cum 1850
icol. (Hedwigia). — Maculis effusis atris, sæpe paginam superio-
rem omnino tegentibus; hyphis effusis, ramosis, rufo- vel fusco-

atris, pseudopodiis alternantibus vel suboppositis, stipitato-capitatis, ca. 10-12 μ . vel rostratis; peritheciis gregarie sparsis, ovoideis obtuse rotundatis vel collabentibus, rugulosis, atris, ca. 150-180 μ ., basi appendiculis rigidis, apice dichotomis vel repetito dichotomis, atris, ca. 150-200 \times 8-10 atris, ramis divergentibus apice pellucidis rotundato-incrassatis v. incis; ascis ovoideis v. oblonge ellipsoideis, 2- vel 3-sporis; sporidiis cylindræis, utrinque rotundatis, 4-septatis, constrictis, 32-40 \times 10-15, atris.

Hab. in foliis *Lonchocarp*i *Ulei*, Marary, Rio Juruá Amazoniæ.

12. *Meliola Ipomœæ* Earle in *Muhlenbergia* 1901, p. 10. — Epiphylla. 1851
maculas minutas 1 mm. diam., irregulariter rotundatas vulgo confluentes, brunneas formans; mycelio parco; hyphis ramosissimis tenuibus, circ. 7 μ . cr., septatis; hyphopodiis capitatis, copiosis 16-20 μ . long., regularibus, capitulo globoso 10-12 μ ., cellula basilari 4-8 \times 6-7, angulo acuto inserta, setis copiosis, rectis vel abrupte basi curvatis, fuscis, crebre septatis 250-300 \times 7, apice 4 μ . cr., obtuso integro, subhyalino; peritheciis paucis, 2-4 in singula macula, 120-160 μ . diam. nigris, collabentibus, obscure ostiolatis, contextu parenchymatico cellulis hexagonis 12 μ . diam; ascis late ovoideis vulgo 4-sporis mox evanescentibus; sporidiis compressis, ovoideis e latere cylindræis, utrinque rotundatis, subæqualiter 4-septatis non vel vix constrictis, 35 \times 14 \times 8, fusco-olivaceis, subdiaphanis, cellula quarta paullulo latiore.

Hab. in foliis viventibus *Ipomœæ* prope Mayaguez, Portorico. 1852

13. *Meliola asterinoides* Wint. — Syll. IX, p. 423. — var. *Psychotriæ* P. Henn. *Fungi Amaz.* III, 1904, p. 361, cum icone (*Hedwigia*). — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, ca. 300-350 μ . diam., radiato-cellulosis, asterinoideis, atris, margine hyphis radiantibus, pseudopodiogenis circumdatis, pseudopodiis alternantibus, ovoideis; ascis ellipsoideis, 2-sporis. 35-45 \times 20-25; sporidiis cylindræis, utrinque rotundatis, 4-septatis, constrictis, 30-38 \times 10-14.

Hab. in foliis *Psychotriæ*, Manáos Rio Negro Amazoniæ.

14. *Meliola autumnalis* Syd. Ann. Myc. 1904, p. 169. — *Amphigena*, 1853
sæpius epiphylla, immaculans; mycelio tenui, radiato-reticulato, ex hyphis repentibus ramosis anastomosantibusque septatis, fuscis ca. 7 μ . crassis, hyphopodia stipitata 1-septata clavato-capitato 18-30 μ . longa gerentibus composito; peritheciis globosis, rugulosis, atris, 175-200 μ . diam., sparsis vel hinc inde paucis aggregatis;

ascis ovato-clavatis, mox diffluentibus, 2-4-sporis; sporidiis oblongis, rectis v. leniter curvulis, utrinque rotundatis, 3-septatis, non constrictis, ex hyalino tandem brunneis, $35-42 \times 11-14$.

Hab. in foliis vivis *Gei chilensis*, Concepcion in Chile frequens (F. W. NEGER).

15. *Meliola manihoticola* P. Henn. Fungi Amaz. III, 1904, p. 364, 1854 cum icona (Hedwigia). — Maculis mycelii epiphyllis, gregarie sparsis, rotundatis, radiatis, atris 1-2 mm. diam., hyphis repentibus, ramosis atro-fuscis ca. 3-6 μ . crassis; pseudopodiis alternantibus v. oppositis, pedicellato-capitatis vel rostratis; peritheciis sparsis vel subaggregatis, subglobosis, atris, cellulosis, ca. 120-170 μ ., basi setulis rigidis pluriseptatis, apice subhamatis, obtuse incrassatis fusco-brunneis, ca. 100-220 \times 6-8; ascis oblonge ellipsoideis vel ovoideis, 2-3-sporis, 35-45 \times 20-23; sporidiis cylindraceutis, obtusis, 4-septatis, constrictis, atro-fuscis, 25-35 \times 8-11.

Hab. in foliis *Manihot utilissimæ*, Rio Jurua Jurua Miry, Marary et Manaos Amazoniæ.

16. *Meliola Panici* Earle in Muhlenbergia 1901, p. 12. — Maculas 1855 minutas, 1-3 mm. diam., vulgo confluentes formans; mycelii hyphis 6-8 μ . cr., parce ramosis, septatis, hyphopodiis capitatis vulgo alternis et valde divaricatis 16-20 \times 6-8, capitulo latiore quam longiore, irregulari, vulgo 3-4-lobo; hyphopodiis mucronatis copiosis, oppositis, angulo recto insertis doliiformibus, læte fuliginis, 12 μ . longis; setis numerosis, rectis, apice indiviso, obtuso, obscure septatis, opacis, 400-600 \times 8-10; peritheciis sparsis, nigris non vel vix collabentibus 150-200 μ . diam., non ostiolatis; ascis ovoideis 3-4-sporis, mox evanescentibus; sporidiis compressis, 4-septatis, leviter constrictis, utrinque rotundatis, 40 \times 12 \times 8.

Hab. in foliis *Panici latifolii*, Santurce Portorico. — Ab affinis *M. amphitricha* et *M. tenui* satis diversa hyphopodiis lobatis et setis indivisis.

17. *Meliola mattogrossensis* Starb. in Arkiv. för Bot 1904, Band 2, 1856 pag. 10. — Mycelio primo maculas orbiculares efficiente demum late repente confluyente, totam paginam superiorem folii fere obtigente, etiam hypophyllo, hyphis ramosis anastomosantibus, hyphopodiis alternantibus v. sæpissime oppositis dense obsessis formato; hyphopodii cellula apicali 10 \times 6,5 vel 7 μ . diam., pedali 3,8-6,5 μ . alt.; peritheciis adspersis vel gregariis lenticulari-sphæroidis demum patellariter collapsis, verruculosis, setis mycelialibus similibus ornatis, membranaceis, atratis, 200 μ . diam.; setis myce-

lialibus numerosis, erectis vel basi arcuato-procumbentibus, parce septatis, fuscis, apice acutatis vel rarissime et brevissime bi-trifurcatis, usque ad 400 μ . longis, ramulis inæquilonis; ascis jam resorptis; sporidiis oblongatis, utrinque rotundatis 4-septatis, constrictulis, fuscis, 34-37 \times 14-15.

Hab. in foliis vivis in silva primæva Poaia, Matto Grosso Brasilæ.

18. **Meliola Piperis** Earle in Muhlenbergia, 1901, p. 12. — Maculas 1857
 densas, nigras 5-10 mm. latas facile secedentes formans; mycelii hyphis densis, rectis v. curvis, 6-8 μ . d. septatis; hyphopodiis capitatis, alternis v. oppositis, minutis, brevibus, divaricatis, capitulo globoso 8 μ . cr., cellula basali 4 μ . diam.; hyphopodiis mucronatis non visis; setis copiosis, cylindricis, non tenuatis, opacis, rarius septatis, 150-200 \times 6-8, semel vel ter dichotome ramosis, ramis primariis divaricatis 20-25 μ . longis, ultimis brevibus, acutis; peritheciis copiosis, non ostiolatis, non vel vix collabentibus 150 μ . diam., contextus cellulis minutis 4-6 μ . diam.; ascis ovoideis, mox evanescentibus, 2-(vel 4?)-sporis; sporidiis cylindricis subæqualiter 4-septatis, leviter constrictis, utrinque obtusis, 35 \times 10.

Hab. in foliis Piperis adunci, prope Mayaguez, Portorico.

19. **Meliola rubicola** P. Henn. in Hedw. 1904, p. 140. — Maculis 1838
 sparse gregariis, atris, rotundatis, minutis, plerumque 1-2 mm. diam., radiantibus; hyphis repentibus, ramosis, septatis, fuscis; hyphopodiis alternis, late clavatis, plerumque applanatis, 15-20 \times 10-14 fuscis; peritheciis paucis, hemisphærico-pulvinatis, atro-castaneis ca. 160-200 μ .; ascis ovoideis vel ellipsoideis, 2-3-sporis, 36-48 \times 20-25; sporidiis cylindræis, utrinque rotundatis, 3-septatis, paullo constrictis, olivaceo-atris, 30-43 \times 11-15.

Hab. in foliis Rubi rosifolii, Tosa Japoniæ (YOSHINAGA).

20. **Meliola Anacardii** A. Zimm. in Centr. fr. Bakter. 1902, II Abt. 1859
 VIII, pag. 151. — Mycelio epiphylo, maculas orbiculares atras 1-1,5 mm. diam. efficiente; hyphis adpressis 6-7 μ . cr., opposito-ramosis; hyphopodiis alternis oblongis, basi septatis, articulo superiori 16 \times 8; setis circa perithecia indivisis, apice cristatis, usque 250 \times 6; peritheciis atris globosis, 100-160 μ . diam.; ascis fugacibus bisporis; sporidiis ovoideo-cylindræis, utrinque rotundatis, constricto-4-septatis, levibus, saturate olivaceo-brunneis, 40-44 \times 18, e latere compressis, 12 μ . cr.

Hab. in foliis Anacardii occidentalis culti in hortis Buitenzorg Javæ.

21. **Meliola anomala** Tracy et Earle in Bull. of the Torr. bot. Club. 1860 1901, p. 184. — Mycelio plagulas rotundatas epiphyllas, sericeas, nigras, 2-5 mm. diam. griseo-cinctas efficiente, ex hyphis brunneis, opacis, septatis 8 μ . diam. composito; conidiophoris? fere hyalinis, tenuibus, ramosis circ. 4 μ . diam.; conidiis non visis; hyphopodiis capitatis, sæpe dense stipatis, subrotundis, levibus 16 \approx 12, raro subangulosis, cellula stipitis 6 \approx 6 μ .; hyphopodiis mucronatis non visis; setis mycelii copiosis, intense brunneis, sæpe septatis 200-300 μ . long., basi 7 μ . cr., apice 4 μ . cr.; peritheciis sparsis 200 μ . diam.; cellulis contextus 8 μ .; ascis clavatis vel obovatis, pedicellatis, fasciculatis, octosporis 100 \approx 20-40; sporidiis valde clavatis, fuligineis 4-septatis, 40-45 μ . long. superne 12 μ . crassis, inferne 4 μ . cr.

Hab. in foliis vivis Perseæ spec. Palma Sola, Fla. Amer. bor.

22. **Meliola Willoughbyæ** A. Zimm. in Bull. de l'Inst. bot. de Buitenz. 1861 1901, p. 23. — Maculis amphigenis subrotundis, 10 mm. diam.; mycelio arachnoideo ex hyphis 7-8 μ . cr., opposita ramosis composito; hyphopodiis alternis, nigris, cellula inferiore 5 μ . longa, superiore 15-20 \approx 8-12; peritheciis globosis, rugosis 120-160 μ . diam.; ascis bisporis; sporidiis ovoideis, 4-septatis, brunneo-nigris 40-45 \approx 16-18.

Hab. in foliis Willoughbyæ firmæ, Buitenzorg in insula Java.

23. **Meliola exilis** Syd. Ann. Mycol. 1904, p. 170. — Amphigena, 1862 sæpius hypophylla; mycelio tenui, effuso, parce evoluto, ex hyphis repentibus ca. 6-7 μ . crassis ramosis nodulosis brunneis, hyphopodia stipitata alternantia, irregularia, apice capitata, sæpe irregulariter bi-triloba gerentibus composito; peritheciis paucis, sæpius solitariis, globulosis, atris, 175-230 μ . diam.; ascis ovato-ellipsoideis, ca. 70 \approx 28-35, 2-4-sporis; sporidiis subfusoides, 3-septatis, non constrictis, plerumque leniter curvatis, utrinque acutiusculis, ex hyalino brunneis, 46-54 \approx 12-14.

Hab. in foliis vivis Gaultheriæ spec. in Andibus ad lacum Quillen ad fines chilenses et argentinus.

24. **Meliola echinus** P. Henn. Fungi Amaz. III, 1904, p. 363 cum 1863 icon. (Hedwigia). — Peritheciis hypophyllis sparsis, subovoideis, rotundatis, collapsis, atro-fuscis, ca. 200 μ . diam., appendicibus cylindræis, rectis v. apice curvulis, pallide fusciculis ca. 100-200 \approx 10-20 dense squarrosis; hyphis mycelii sparsis, flavo-fuscis vel atrofuscis; hyphopodiis subalternantibus, capitatis, atrobrunneis,

15-30 \approx 10-15; ascis oblongis, 2-sporis; sporidiis cylindraceis, 4-septatis, atro-fuscis, constrictis, utrinque obtusis, hyalino-subpapillatis, 40-52 \approx 16-20.

Hab. in foliis Coussapora, Rio Juruá, Juruá-Miry Amazoniæ.

25. *Meliola Cyperi* Pat. in Gaill. Monogr. Gen. Mel. p. 70 cum ic. — 1864

Syll. XI, p. 263. — forma *italica* Sacc. Notæ Mycol. in Syd. Ann. Mycol. 1903, p. 24, D. Sacc. Myc. ital. n. 1022. — A typo vix recedit setulis apice acutissimis; sporidia utrinque obtusula, 4-septata, 40-47 \approx 14-18, atro-fuliginea; hyphopodia oblongo-obovata 30 \approx 11-12, uniseptata, rarius 2-3-septata.

Hab. in foliis languidis v. emortuis Cladii Marisci, in paludibus Meolo (Venezia) Italiæ borealis. Detexit ANTONIA SACCARDO-VANZETTI. — Prima typica species *Meliolæ* in Europa reperta!

26. *Meliola atricapilla* Starb. in Arkiv. for botan. 1904, band 2, p. 9, 1865

fig. 19-21. — Plagulis epiphyllis, orbiculariter vel varie, pro ratione distincte, (sub lente dendritice) determinatis, discretis, rarissime confluentibus, ob setulas velutinis, aterrimis; mycelii peritheciigeri hyphis 9-10 μ . cr., hyphopodiis 25-31 \approx 12-15, alternantibus obsessis, obscure fuligineis, confluentibus, crustam densissime setigeram efficientibus; hyphopodiis bilocularibus, clavato-oblongis; setis erectis, rigidis, continuis, ad basim arcuatis, apice acutatis 250-300 \approx 8-12; peritheciis inter setas absconditis, gregariis, paucioribus, sphaeroideis, verruculosus vel rugosiusculis, textura membranacea, nigris, 250-300 μ . diam.; ascis ovatis, sessilibus, bisporis 70 \approx 30, trisporis 76-90 \approx 35-40; sporidiis binis vel ternis, ellipsoideis, utrinque rotundatis, 4-septatis, constrictulis, ex hyalino olivascentibus 48-50 \approx 19-21.

Hab. in foliis vivis in silva primæva, Colonia Elisa, Paraguay (LYNDMAN).

27. *Meliola cornu-capræ* P. Henn. Fungi Amaz. III, 1904, (Hedw. 1866

gia) p. 362. — Maculis mycelii trunciculis rotundato-pulvinatis vel effusis, atro-crustaceis; hyphis repentibus, ramosis, atris, 5-8 μ . crassis; pseudopodiis ovoideis, clavatis vel rostratis; peritheciis sparsis vel aggregatis, lenticularibus, atris, ca. 300 μ . diam., basi appendiculis cylindraceis, corniformibus, apice obtuse involutis, obscurioribus, pallide fuscidulis, concentrice annulatis, ca. 80-150 \approx 25-35 μ .; ascis 2-sporis, oblongis, ca. 70 \approx 35; sporidiis cylindraceis, obtuse rotundatis, 4-septatis, constrictis, 50-60 \approx 20-25, atris.

Hab. in caule Euphorbiaceæ cujusdam, Rio Juruá, Juruá-Miry Amazoniæ.

28. **Meliola Negeriana** Syd. Ann. Mycol. 1904, p. 170. — Amphigena, 1867
 plerumque epiphylla; maculis orbiculatis, velutinis, atris, crassis, 1-4 mm. diam., margine definite limitatis; peritheciis aggregatis, globulosis, 175-320 μ . diam., atris, inter setas rigidas erectas numerosissimas brunneas apice parum dilutiores ca. 7 μ . crassas nidulantibus; ascis late clavatis, 2-4-sporis, 75-105 \times 24-35; sporidiis cylindrico-oblongis, utrinque rotundatis, rectis, 3-septatis, ex hyalino mox brunneis, ad septa leniter constrictis, 50-63 \times 14-17.

Hab. in foliis Lomatiae obliquæ in Chile, frequens.

Sect. 6. Dictyosporæ.

ZUKALIOPSIS P. Henn. Fungi Amaz. III, 1904, p. 367 (Etym. a *Zukalia*, cui affine genus). — Perithecia superficialia, mycelio effuso, fusco circumdata, submembranacea, atra, subastoma. Asci subovoidei, 8-spori; sporidia cylindraceo-oblonga vel clavata, pluriseptata, muralia, hyalina. *Zukaliæ* affinis sed sporidia murali-divisa.

1. **Zukaliopsis amazonica** P. Henn. l. c. — Peritheciis amphigenis, 1868 gregariis, ovoideis vel subglobosis, submembranaceis vel subcarbonaceis, apice obtusis subastomis, atris, rugulosis, ca. 120-140 μ .; basi hyphis repentibus, fuscis, septatis, ramosis, 3-4 μ . crassis; conidiis sparsis, fuscoideis, apiculatis, 3-septatis, constrictis, fuscis, ca. 20 \times 4 $\frac{1}{2}$; ascis ovoideis, crasse tunicatis, basi breve curvato-stipitatis, 8-sporis, 20-30 \times 15-25; sporidiis conglobatis oblonge clavatis vel subcylindraceis, rectis vel curvulis, 4-5-septatis, interrupte muralibus, hyalinis, 15-20 \times 4-5.

Hab. in foliis Sapindaceæ cujusd. (Paullinia?) Iquitos, Rio Amazonas Perù.

PLEOMELIOLA Sacc. — Syll. I p. 70 (ut subgenus) et XIV p. 17 (Etym. *Pleo*, breviatio *Pleosporæ* et *Meliola*, ob sporidia muralia). — Est *Meliola* sporidiis septato-muriformibus, fuscis.

1. **Pleomeliola Hyphænes** P. Henn. in Engl. Bot. Jahrb. 1903, p. 46. 1869
 — Maculis gregariis, rotundatis, atro-sanguineis vel fuscis, centro pallidulis, exaridis, ca. 5-10 mm. diam., hyphis brevibus, ramosis, septatis, 3-4 μ . cr., brunneis; conidiis oblonge clavatis vel fuscoideis, erectis, 4-9-septatis, vix constrictis, ferrugineis, apice obtusis vel subacutis, subhyalinis, 40-80 \times 7-10; peritheciis gregariis, subglobosis, rugulosis, apice perforatis, 80-120 μ . diam., membrana-

ceo-cellulosis, ferrugineis; ascis ovoideis, apice rotundatis, truncatis, octosporis $25-36 \times 17-23$ aparaphysatis; sporidiis conglobatis, oblonge cylindræis vel subelavatis, utrinque obtusis, 4-5-septatis, interrupte muriformibus, hyalinis, dein fuscidulis, $10-15 \times 3,5-4,5$.

Hab. in foliis *Hyphænes* spec.. Dar-es-Salam, Zanzibar Africa orient. (STUHLMANN),

Trib. 5. Capnodiæ Sacc.

CAPNODIOPSIS Henn. in Hedw. 1902, pag. 299 (Etym. a *Capnodio*, cui affinis). — Mycelium fuscum, sparsum. Perithecia subcoriacea, subglobulosa, vertice elongato-cornuta, atra, apice rotundato aperta. Asci ovoidei v. subglobosi, tunicati, octospori. Sporidia subglobosa, continua, hyalina vel dilute fuscidula.

1. **Capnodiopsis mirabilis** Henn. l. c. — Peritheciis hypophyllis, gre- 1870
garie sparsis, basi hyphis fuscidulis, septatis, sparsis 3-4 μ . crassis circumdatis, subglobosis vel depressis, atro-fuscis, rugulosis 60-80 μ . diam., vertice vel lateraliter elongato-cornutis, cornu cylindræo, curvato, atro-fusco, 100-160 μ . longo, 20-30 μ . crasso, apice flavido, pluri-annulato, primo rotundato clauso, dein late aperto; ascis ovoideis vel subglobosis, crasse tunicatis, $25-28 \times 20-25$, octosporis; sporidiis conglobatis ovoideis vel subglobosis, continuis, intus minute granulatis, hyalinis vel dilute fuscidulis $7-10 \times 6-8$.

Hab. in foliis vivis Compositæ cujusdam, Serra da Cantareira, S. Paulo Brazilæ.

CAPNODIUM Mont. — Syll. I p. 73, IX p. 438, XI p. 270, XIV p. 476.

1. **Capnodium Anonæ** Pat. Bull. Soc. Mycol. 1904, p. 135. — Epi- 1871
phyllum, effusum, nigrum, crustaceo-pelliculosum, sæpe totam foliorum superficiem occupans, facillime dilabens; mycelio brunneo, ramoso, toruloso, ex articulis subglobosis vel cylindræis $10-15 \times 6-10$ formato; conidiis stellatim 3-4-locularibus, *Triposporio* similibus, pallide brunneis; peritheciis pycnidicis erectis usque ad 400 μ . altis, cylindræis, gracilibus 25 μ . cr., ramosis, membranceis, sursum obtuse attenuatis, poro pertusis, longe stipitatis; peritheciis ascigeris coriacellis, ovoideo-inflatis apice obtusis pertusisque 150×100 , longe ramoso-stipitatis; ascis ovoideis 60×25 , 4-6-sporis; sporidiis ellipsoideo-elongatis, primo hyalinis, medio

1-septatis constrictisque, dein fuscis, 5-6-septatis, septis longitudinalibus 1-2.

Hab. in foliis vivis *Anonæ squamosæ* in insulis Gambier Polynesiæ Gallicæ.

2. *Capnodium brasiliense* Puttemans, Bull. Soc. Mycol. 1904, p. 153, 1872 t. X, f. 1-10: — Effusum, atrum, totam superficiem paginæ superioris tegens; mycelii hyphis polymorphis, olivaceo-fuliginis, cellulis inæqualibus septo constrictis, 6-10 μ . lat. vel subcylindraceis, regularibus 3 μ . cr.; pycnidiis 250-300 μ . longis, rectis vel parte superiore paulum inclinatis, parte inferiore 50 μ . lata, dein circa medium subito coarctatis et usque ad apicem cylindricis vel breviter attenuatis, 11-13 μ . diam. sup.; sporulis rectis, cylindricis hyalinis, 4-5 \times 1,5-2; peritheciis gregariis varia magnitudine 35-60 μ . diam., nunc sed rarius pycnidio connexis et ex hujus parte inflata productis plus, minusve sphaericis, sed pedicello cylindrico plus minus longo 30-40 μ . lato suffultis, apice aperto vix prominente 4-5-dentato; ascis forma valde variabili sed semper basi attenuatis, modo obovalibus, modo parte media fortiter incrassatis 30-35 \times 11-26; sporidiis 4-8, inordinatis, primo hyalinis dein olivaceo-fuliginis, 3-septatis, obovalibus, loculo pænultimo incrassato 13-16 \times 5.

Hab. in foliis *Coffeæ arabicæ*, Sao Paulo Brasiliæ. — Status conidici sistunt *Coniothecii*, *Cladosporii*, *Brachysporii*, *Torulæ*, *Triposporii* species.

LIMACINIA Neger — Syll. XIV p. 474, XVI p. 1127.

I. *Eu-Limacinia*. Sporidia transverse septata.

1. *Limacinia Aurantii* P. Henn. in Hedw. 1902, p. 298. — Mycelio atro, 1873 effuso, crustaceo-membranaceo, ex hyphis repentibus, atro-fuscis, septatis, 4-7 μ . cr.; conidiis pleurogenis, singularibus, pluriseptatis, fuscis, subulatis vel quadriradiatis, radiis subulatis vel fusoidis, atro-fuscis, 60-100 \times 10-12, pluriseptatis plus minus constrictis; peritheciis sparsis, subhemisphaericis, membranaceo-cellulosis v. subcoriaceis, atro-fuscis, 180-200; ascis clavatis, apice rotundatis, tunicatis, octosporis 50-60 \times 20-25; sporidiis conglobatis, fusoidis, utrinque obtusiusculis vel subacutis, 3-septatis, vix constrictis, 20-30 \times 5-7, hyalino-fusculis.

Hab. in foliis *Citri Aurantii*, S. Paulo Brasiliæ.

2. *Limacinia Castilloæ* (Zimm.) Sacc. et Syd. — Syll. XVI, p. 1128 1874

(nomen). — *Antennaria Castilloæ* A. Zimm. in Bull. Inst. Bot. Buitenz. X, 1901, p. 14. — Mycelio epiphylo, ex hyphis fuliginosis nigris formato; peritheciis rotundis, nigris, setosis 190-230 μ . diam.; ascis octosporis, clavatis, 100 μ . longis; sporidiis 3-septatis, initio hyalinis dein brunneolis, fusiformibus, 45-50 \times 12.

Hab. in foliis *Castilloæ* elasticæ, ab *Iceryæ* specie invasis, in horto culturali, Buitenzorg, in insula Java.

3. *Limacinia setosa* (Zimm.) Sacc. et D. Sacc. *Antennaria setosa* A. 1875 Zimm. Centr. f. Bakter. 1902, VIII, p. 151. — Mycelio epiphylo, crustas atras formante; peritheciis globosis, setis nonnullis sursum versis, atro-brunneis, prope ostiolum pallidioribus vestitis, 70-90 μ . diam.; setis 100 \times 6 (basi); ascis 8-sporis, clavatis, 40 μ . longis; sporidiis 4-cellularibus, oblongis, utrinque obtusis, cellulis binis unius apicis latioribus et brevioribus, hyalinis, tandem forte brunneolis 20-25 \times 4-5; paraphysibus non observatis.

Hab. in foliis *Coffeæ* hybrid. cujusdam, a *Pulvinaria Bidii* vexatis, in hortis Buitenzorg Javæ. — Spectat cum præc. et seq. spec. ad Sect. II generis (peritheciis setosis). Cfr. Syll. XIV, p. 475.

4. *Limacinia coffeicola* Puttemans, Bull. Soc. Mycol. 1904, pag. 153, 1876 tab. X, f. 11-13. — Peritheciis subglobosis fuliginosis, astomis, conoideis, apice subtruncatis, setis atro-fuliginosis simplicibus continuis usque 100 \times 3-4, superne et inferne subhyalinis basisque incrassatis parte superiore præditis; ascis aparaphysatis, versiformibus, plerumque elongatis 50-75 \times 15-20; sporidiis hyalinis subfusoides, initio continuis, triguttatis, dein 4-septatis, in asco inordinatis, 15-18 \times 5-6.

Hab. in foliis *Coffeæ arabicæ*, in horto botanico Sao Paulo Brasilæ.

5. *Limacinia tangaensis* P. Henn. in Engl. Bot. Jahrb. 1903, p. 47. 1877 — Mycelio crustaceo atro, late effuso paginam foliorum obducente; hyphis repentibus, ramosis, septatis, atro-fuscis, sæpe torulosis, usque ad 8 μ . cr.; peritheciis sparsis, ovoideis, subglobosis vel oblongis ca. 80-100 \times 60-80, contextu membranaceo-celluloso; ascis ovoideis vel clavatis, vertice rotundatis, tunicatis, 4-sporis, 25-40 \times 10-20, aparaphysatis; sporidiis conglobatis, oblonge cylindraceis vel clavatis, utrinque obtusis, 5-septatis, constrictis, hyalinis, 16-25 \times 4-5.

Hab. in foliis *Mangiferæ indicæ*, Tanga, Zanzibar Africæ orient. (STUHLMANN).

II. *Limacinula* Sacc. Sporidia murali-divisa.

6. *Limacinia javanica* (Zimm.) Sacc. et D. Sacc. *Capnodium javanicum* A. Zimm. Centralbl. f. Bakter. 1902, VIII, p. 151. — Mycelio crustam nigram facile secedentem, totam foliorum paginam super. obtegentem formante, e cellulis brunneolis formato; peritheciis liberis sessilibus, globosis, breve papillatis, nigris, nitidis, 100-160 μ . diam.; ascis 8-sporis, sessilibus; sporidiis ovoideis, murali-divisis, hyalinis, 40-50 \times 10-16; paraphysibus nullis.

Hab. in foliis *Coffeæ libericæ* (a *Lecanio viridi vexatis*) in horto Buitenzorg Javæ. — Ob perithecia globulosa est *Limacinice* spec., sed ob sporidia hyalodictya potius novum genus (*Limacinula*).

III. Species incertæ sedis.

7. *Limacinia? alaskensis* Saccardo et Scalia, Harrim. Alaska Exped. 1879 Crypt. p. 34, pl. IV, fig. 1. — Effusa, superficialis, densa, opace atra, subpannosa, 2-4 cm. longa, 500-750 μ . cr.; hyphis mycelii hormiscioideis, filiformibus, simplicibus v. furcatis, 400-500 \times 16-18, crebre septatis, ad septa constrictis, articulis globoso-cuboideis, 15-20 \times 13-15, subinde latioribus quam longis, fuligineis, plerumque parietali-1-guttatis; conidiis oblongo-fusoideis, 28-30 \times 10, 3-septatis, vix constrictis, fuligineis; peritheciis in mycelio gregariis et subabsconditis globulosis, obtusis v. depressis, 180-200 μ . lat., hyphis consimilibus laxè vestitis; ascis (immaturis) clavatis, 90-120 \times 15-18, apapophysatis, subsessilibus; sporidiis non visis.

Hab. in ramis adhuc vivis *Alni*, Glacier Bay Alaska (TRE-LEASE). — Mycelium sistit *Hormiscii* v. *Antennariæ* formam; quæ forte ad *Hormiscium altum* Ehrenb. accedit.

SEURATIA Pat. Bull. Soc. Mycol. 1904, p. 136 (Etym. a cl. L. SEURAT, qui fungos insularum Gambier legit). — Biogena; subiculo nullo inserta. Perithecia sicca rigida, humida gelatinoso-mollia, sessilia, varie ramosa, ex hyphis subhyalinis moniliformibus composita, rima laterali-dehiscencia. Asci suboctospori; sporidia 1-septata hyalina. — Contextu subgelatinoso et dehiscencia perithecii genus omnino distinctum. — *Heterobotrys paradoxa* Sacc. videtur v. forma ejus conidiophora vel status infans.

1. *Seuratia coffeicola* Pat. l. c. fig. 1 a-h. — Epiphylla; peritheciis 1890 sparsis, minutis, sessilibus, tremelloso-gelatinosis, brunneolis, pelucidis, applanatis 0.5-1 mm. lat., 3-8-corniculatis, ramis patentibus.

bus, simplicibus aut furcatis teretibus vel inflato-nodosus, contextu laxo gelatinoso, filamentoso-toruloso, articulis hyalinis ovoideis vel piriformibus, 6-10 μ . longis, ultimis fuliginosis minoribus subglobosis 5-6 μ . diam.; ascis numerosis ovoideis, subsessilibus apice incrassatis 35 \times 22, octosporis, aparaphysatis, ope J. non cærulescentibus; sporidiis hyalinis ovoideis, medio 1-septatis constrictisque 14-17 \times 7-10, loculis subglobosis.

Hab. in foliis *Coffeæ arabicæ* in insulis Gambier Polyne-siæ gallicæ.

ANTENNARIA Link — Syll. I p. 80, IX p. 442.

1. *Antennaria rectangularis* Saccardo, Harrim Alaska Exped. Crypt. 1881 p. 34, pl. III, fig. 9. — Cæspitulosus v. effusus, superficialis, atro-fuliginea, laxiuscule intricata; hyphis ascendentibus, tortuosis v. subrectis, longissimis, filiformibus, 1,5-2 mm. long., 12-15 μ . cr., parce ramosis, multi-articulatis, articulis 22-28 \times 12-15, ad septa non v. leniter constrictis, sæpe 1-guttatis; ramis simplicibus, subalternis, angulo perfecte recto patentibus, 70-80 raro usque 400 μ . longis, apicibus acutiusculis v. obtusis; peritheciis non visis.

Hab. ad surculos et folia *Phyllodoceæ* glandulifloræ, Sitka Alaska (HOWELL). — Certe affinis *Antennariæ Robinsonii* B. et M.; differt tamen hyphis omnibus æqualibus, nec partim torulosis, ramis angulo perfecte recto oriundis etc.

2. *Antennaria Unedonis* Maire et Sacc. in Ann. Mycol. 1903, n. 3, 1882 fig. II. — Epiphylla, nec non epiclada; mycelio partim effuso crustoso e cellulis pallidis moniliformi-seriatis vel *Coniothecii* ad instar plus minusve congregatis, filamentis tenuibus intermixtis, partim e floccis erectiusculis vel subeffusis, aterrimis contexto; hyphis floccorum subarticulatis juvenilibus subtiliter verruculosus, adultis sæpe sublevibus, vage ramosis, aliquando anastomosantibus, sub lente fuscis, 5-8 μ . crassis, cellulis plerumque cylindraceis, rarius oblongis vel subglobosis, spermogoniis biformibus, aliis minoribus piriformibus, fuscis, hyphis lateraliter adfixis, rarius acrogenis, superficie tuberculosus, spermatia cylindracea, hyalina, 2,5-4 \times 1-1,5 emittentibus, 80-120 μ . longis; aliis autem majoribus cylindraceis vel corniformibus usque ad 300 μ . longis, atris, superficie tuberculosus, spermatia ellipsoidea vel oblonga, hyalina, 2,5 \times 1,5 emittentibus; conidiis forma variis, aliis *Cladosporii*, aliis rarissimis *Tripasporii* characteres exhibentibus; pycnidiis peritheciisque asco-phoris ignotis.

Hab. ad folia ramulosque Arbuti Unedonis in Corsica.

2. *Antennaria scoriadea* Berk. — Syll. I, p. 82, et Sacc. Fl. Myc. Lus. XII (1903) p. 4.

Hab. in foliis ramisque Corree ferrugineæ, in horto botanico Coimbra Lusitaniæ. — Pulcra species. Perithecia (?) in hyphis acrogena, globosa, 30 μ . diam., rara; hyphæ articulatæ in rhabdos fasciculatæ; articuli 5-7 μ . cr., guttulati, diametro transverso 2-3-plo longiores. Species probabiliter importata ex Australia, quæ reapse patria *Corree*.

Fam. 2. Sphæriaceæ Fr.

Sect. 1. Allantospora.

ENCHNOA Fr. — Syll. I p. 89, IX p. 442, XI p. 271, XIV p. 478, XVI p. 1128.

1. *Enchnoa Friesii* Fuck. — Syll. I, p. 91. — var. **Salicis** Feltgen 1883 Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 135. — Peritheciis sparsis vel subcircinantibus, mycelio brunneo vestitis, globoso-depressis, ostiolo verruciformi, epidermidem perforante; ascis tetrati-clavatis 52-75 \times 6,5-8, p. spor. 40-50 μ . long.; sporidiis octonis, inordinatis, cylindraceo-curvis, utrinque obtusis, hyalinis, eguttatis, 12-15 \times 2,5-3.

Hab. in ramis salicinis, Luxemburg.

2. *Enchnoa Syringæ* Feltgen Vorstud. Pilz. Luxemb. Nachtr. III, 1884 1903, p. 161. — Peritheciis dense et æqualiter sparsis, omnino immersis, ostiolo globoso, subinde rostellato, erumpentibus, hemisphæricis; hyphis brunneis vel subhyalinis cinctis, 0,5-1 mm. d.; ascis non visis; sporidiis cylindraceo-ellipsoideis, curvulis, continuis, hyalinis, 11-13 \times 3-4.

Hab. in ramis siccis corticatis Syringæ vulgaris, Luxemburg. — Dubia species, quia asci non visi.

CÆLOSPHÆRIA Sacc. — Syll. I p. 91, IX p. 443.

1. *Cœlosphæria? pusillima* Speg. in Ann. Soc. Cient. Arg. 1899, 1885 p. 269. — Maculis nullis v. tota ligni superficie pallescente; peritheciis densiuscule gregariis sed non constipatis et sæpius late diffusis, ligno semiinsculptis, globosis, 120-150 μ . diam., carbonaceis, glabris; ostiolo sæpius elongato, gracili, obtuso; ascis clavu-

latis, antice obtuse rotundatis, postice cuneato-attenuatis breviterque pedicellatis, p. spor. $15-16 \times 6$, pedicello $5-10 \times 1-2$, octosporis, aparaphysatis; sporidiis botuliformibus leniter curvulis, utrinque obtusis atque minute uniguttulatis, $4-5 \times 1$, hyalinis.

Hab. ad ramos denudatos putrescentes *Erythrinæ* cristagalli, in insula Santiago prope La Plata Argentina. — Species valde singularis a genere ostiolo elongato sat recedens: an melius *Pleurostoma*?

NITSCHKEA Otth — Syll. XI p. 172, XVI p. 417.

1. *Nitschkea subconica* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 1886

II, p. 201. — Peritheciis sparsis v. 4-8 cæspitulosus, ligni superficiem nigrificantibus, subsuperficialibus v. basi insculptis, subiculo nullo præditis, globoso-conoideis, ostiolo minuto perforato nitido, opace nigris, 0,5 mm. diam.; ascis octosporis, clavato-piriformibus $20-31 \times 4,5-6$, parte sporif. $13-18 \mu$. longa, subinde 4-sporis, $15 \times 3,5$; sporidiis distichis v. inordinatis, allantoideis, utrinque 1-guttulatis v. eguttulatis, $5-6 \times 1-2$; paraphysibus ascos multo superantibus, $60-87 \times 3,5-4,5$ sursum 1-2, septulatis.

Hab. in ramis decorticatis Platani orientalis, Scheidhof, Luxemburg. — Peritheciis non collabascensibus, ascis minoribus etc. a *N. tristi* et *N. cupulari* distinguitur.

2. *Nitschkea Flageoletiana* Sacc. Atti Congr. bot. di Palermo 1902, p. 48. 1887

— Peritheciis in superficie stromatis *Eutypæ latæ* dense lateque gregariis, minutissimis, basi late leviterque coarctata sessilibus, supra appanato-convexulis, $80-100 \mu$. diam., opace nigris, ostiolo brevissime papillato, $10-12 \mu$. diam.; contextu partis superioris peritheciis eximie radiato; ascis rosulatis breviter obclavatis, subsessilibus, sæpe inæquilateris utrinque obtusis, $45-50 \times 14-15$, paraphysibus spuriis mucosis obvolutis, 4-6-sporis; sporidiis subdistichis, breviter fusoides-oblongis, utrinque obtusulis sæpe inæquilateris, $17 \times 5,5-6$, quadriguttatis, guttulis mediis multo crassioribus.

Hab. parasitice in stromatibus *Eutypæ latæ* ad ramos decorticatos Corni sanguineæ (?) Rigny sur Arroux Gallie. — E typo *N. medicæ* et *N. calyculi*, sed bene distincta contextu, ascis sporidiisque.

CALOSPHERIA Tul. — Syll. I p. 95, IX p. 447, XI p. 272, XIV p. 479, XVI p. 419.

1. *Calosphæria Abietis* Krieger ap. Rehm Hedw. 1903, p. (291). — 1888

Peritheciis tectis, cortici interiori adnatis, dein peridermio secedente demum liberis, globosis, 0,5 mm. diam., 5-6 in acervulos valsiformes collectis, interdum solitariis, stromate nullo nec cortice nigrescente circumdatis, glabris; ostioliis cylindraceis, 1 mm. long., convergentibus; ascis clavatis, obtusis, in pedicellum tenuissimum elongatis, 35-40 \times 5-6, octosporis; paraphysibus longissimis, septatis 2,5-3 μ . cr.; sporidiis allantoideis, plerumque semicirculariter curvatis, hyalinis 5-7 \times 1, distichis.

Hab. in ligno corticato Abietis albæ, Schandau Saxonie (KRIEGER).

2. **Calosphæria Cinchonæ** Zimm. Berichte üb. Land-und Forstwirth. 1889

Deutsch Ostafrika, 1904, p. 31, tab. III, fig. 15 *a* et *b*. — Peritheciis subsolitariis vel paucis aggregatis, subliberis, basi tantum insculptis, nigris, sursum pallidioribus, longiuscule rostellatis, 200-250 \times 80-100; ostiolo piloso; ascis octosporis, apice obtusis; sporidiis leviter curvatis vel subrectis, utrinque obtusis, medio guttulatis, 18-20 \times 5.

Hab. in ramis emortuis Cinchonæ succirubræ et C. Ledgerianæ in horto Amanî Africæ orient.

JATTÆA Berl. — Syll. XVI p. 421.

1. **Jattæa Berlesiana** Sacc. et Trav. in Ann. Mycol. 1903, p. 432, f. II. 1890

— Peritheciis sparsis vel laxe gregariis, peridermio insculptis dein erumpentibus, sphæroideis, erostratis, ostiolo subrotundo vix papillato pertusis, 200 μ . diam.; ascis cylindraceo-clavulatis, superne truncatulis, vix pedicellatis, octosporis, 38-42 \times 6-7, paraphysibus paucis, longioribus, guttulatis, commixtis; sporidiis subdistichis, cylindraceo-allantoideis, plerumque biguttulatis, hyalinis, 10-12 \times 2,5.

Hab. in truncis et ramis emortuis Cisti salvifolii, prope Sassari Sardinie (A. N. BERLESE). — Socia adest *Sphærospidacea* quædam (*Cytospora*?) sporulis allantoideis, minutis, 2,5-3,5 \times 0,8-1,2. Verisimiliter status spermogonicus.

VALSA Fr. — Syll. I p. 108, IX p. 449, XI p. 273, XIV p. 481, XVI p. 422.

1. **Valsa (Euvalsa) sardoa** Sacc. et Trav. Ann. Myc. 1903, p. 433, f. III. 1891

— Stromatibus gregariis, minutis, 400-600 μ . diam., subcorticalibus dein erumpentibus et prominentibus, ex 4-15 peritheciis sphærioideo-compressis, circinantibus compositis; disco minuto, circulari, nigro; ostioliis brevicollibus, obtusis, a disco vix emergenti-

bus, nigris; ascis minutis, $20-30 \approx 6$, fusoides-truncatis, octosporis; sporidiis subdistichis, cylindræco-allantoideis, biguttulatis, hyalinis, $5-6 \approx 1 \frac{1}{2}$.

Hab. in ramis corticatis Oleæ europææ, prope Sassari Sardiniae (A. N. BERLESE). — Adest spermogonium peraffine *Cytoporæ elæinæ*, a qua differt præcipue stromatibus infra non umbilicatis et cirro deficiente. Verum hæ notæ probabiliter ab ætate pendent; cetera conveniunt.

2. **Valsa** (Euvalsa) **Cerasi** Feltg., Vorstud. Pilz. Luxemb. Nachtr. II, 1892 p. 113 (1901). — Stromatibus sparsis, basi elliptica, $1,5-2$ mm. latis, nigris, peridermio tumidulo cinctis, disco minuto nigro vix emergente; peritheciis $15-25$ in quoque stromate, monostichis, globoso-ovoideis; ostiolis globoso-conicis, atro-nitidulis, stipatis; ascis clavato-fusoides, $31-40 \approx 5-6,5$; sporidiis distichis v. inordinatis cylindræcis rectis curvulisve, hyalinis, $9-10 \approx 2$, 2-guttulatis.

Hab. in ramis corticatis Pruni Cerasi et P. avium in Luxemburgia. — *Valsæ decorticatæ* affinis; cum *Valsa Persoonii* ne comparanda quidem.

3. **Valsa** (Euvalsa) **ceratophora** Tul. — Syll. I, pag. 108. — var. 1893 **Deutziæ** Feltg. Vorstud. Pilze Luxemb. Nachtr. III, p. 124. — Ostiolis vix supra corticem emergentibus, apice incrassatulis, vix 1 mm. long.; ascis paullo crassioribus; sporidiis $8-12 \approx 2-3$ (nec ut in typo $6-8 \approx 1,5-2$).

Hab. in ramis corticatis Deutziæ scabræ in Luxemburgia. — Var. **Rhois** Feltg. l. c.: peritheciis numerosissimis, brevicollibus, in ostiola minuta globulosa discum griseum vix emergentem formantia terminatis; ascis $33-40 \approx 5,5$; sporidiis $7-9 \approx 1,5-2$. In ramis corticatis Rhois Cotini, Luxemburg. — Var. **farinosa** Feltg. l. c. (*Valsa farinosa* Feltg. Nachtr. II, pag. 115): Imprimis distincta collis et ostiolis globosis indumento griseo-farinoso copiosiore vestitis; ascis $32-39 \approx 4,5-5$; sporidiis $7-8 \approx 1,5-2$. In ramis corticatis Rosæ caninæ, Luxemburg, socia *Cytospora farinosa* Feltg. — Var. **Corni** Feltg. l. c. p. 127: ostiolis ovato-ellipsoideis, vix emergentibus collisque griseo-pruinosis; ascis $38-40 \approx 6,5$; sporidiis $10-13 \approx 2,5-3$. In ramis corticatis Corni stoloniferæ, Fort Olizy Luxemburgiæ.

4. **Valsa** (Euvalsa) **Lepargyræ** Earle, Plantæ Bakerianæ, fasc. II, 1894 fung. p. 25. — Stromatibus sparsis, pustuliformi-emergentibus; peritheciis in singulo stromate $12-20$, immersis, nigris, membranaceis, minute ostiolatis; ascis octosporis, fere sessilibus $40-50 \approx 6$; spo-

ridiis continuis hyalinis, leviter curvulis, utrinque obtusis, 12-16 \approx 3.

Hab. in ramis emortuis *Lepargyreæ argenteæ*, Hermosa, South Colorado, Amer. bor.

5. *Valsa* (Euvalsa) *salicina* (Pers.) Fr. — Syll. I, p. 131. — Hue ducenda, velut forma tetraspora, *Valsa capistraria* De Not. Sfer. ital. I, p. 36, t. 40, Erb. critt. ital. I, n. 1057.

EUTYPELLA (Nits.) Sacc. — Syll. I p. 145, IX p. 460, XI p. 274, XIV p. 484, XVI p. 423.

1. *Eutypella australis* Karst. apud Berl. Ic. fung. III, p. 61, t. 75, 1895 fig. 1. — Stromate late effuso, epidermide tecto, crustaceo, atro, hinc inde circa perithecia acervulatim collecta elevato, tumidulo; acervulis gregariis, minutis, inflatulis; peritheciis in quoque acervulo paucis (2-4), globoso-ovoideis, 500 μ . diam., mutua pressione parum compressis, collis brevissimis convergentibus præditis; ostiolis parum prominulis, incrassato-subsphæroideis, distincte 4-sulcatis, nigris; ascis clavatis, 35-40 \approx 6-8 p. spor.; sporidiis allantoideis 10-12 \approx 2,5-3, pallide luteo-viridulis.

Hab. in ramis ignotis, in Nova Caledonia (BALANSA).

2. *Eutypella Cratægi* Berl. Ic. fung. III, p. 74, t. 92, f. 1. — Stro- 1896 mate late effuso, corticali, plus minusve immerso, serpente, crustaceo, circa acervulos elevato, eos ambiente et peridermium attingente, nigro; acervulis gregariis 1,5-2 mm. diam., orbicularibus, tumidis, verruciformibus, intus albo-pruinosis; peritheciis pruinosis, immersis, ovoideis, 500-700 μ . alt., sæpe mutua pressione compressis, in quoque acervulo 6-10, in collum parum elongatum productis; ostiolis sat exsertis, haud incrassatis, irregulariter 2-4-sulcatis; ascis clavatis 30-40 \approx 5-7 p. spor.; sporidiis allantoideis 10-12 \approx 2,5-3, luteo-virescentibus.

Hab. in ramis *Cratægi Oxyacanthæ*, in agro Veneto Ital. bor. — Ab *Eutypa ludibunda*, teste auctore, satis distincta et *Eutypellæ leprosæ* proxime affinis.

3. *Eutypella Padi* (Karst.) Sacc. — Syll. I, pag. 147. — **E. pirina* 1897 Sacc. et Flag. — A typo differt disco ostiolorum semper suborbiculari, vix 0,5-0,7 mm. diam. (nec 1-2 mm.), ostiolis exiguis leviterque sulcatis; ascis ut in typo 40 \approx 7, p. sporif. 25 μ . longa; sporidiis botuliformibus 6-7 \approx 2, luteolis.

Hab. in ramis corticatis emortuis *Piri communis*, Rigny sur Arroux (Saone-et-Loire) Gallia.

4. **Eutypella diminuta** Sacc. et Flag. in Atti Congr. bot. di Palermo 1898 1902, p. 49. — Stromatibus laxè gregariis, minutis, e basi orbiculari truncato-conicis, cortice immutato immersis, 1-1,2 mm. diam. nigris; peritheciis globosis, circinatis, paucis (5-8), 200-250 μ . diam., brevicollibus; ostiolis erumpentibus et breviter exstantibus, obtuse rotundatis, integris, poro minutissimo pertusis, discum compactiusculum 500-600 μ . diam. formantibus; ascis fusoideis, 22-25 \times 5 (p. sporif.) in stipitem subaequilongum tenuatis, apapophysatis, octosporis; sporidiis distichis, allantoideis, conspicue curvatis, 6-7 \times 1,5, hyalinis, utrinque rotundatis 1-guttulatisque, coacervatis dilutissime olivaceis.

Hab. in ramis corticatis Pruni spinosæ, Rigny s. A. Gallia.

— Ab *E. Prunastri* mox dignoscitur stromatibus dimidio minoribus, subrotundis, peritheciis paucioribus.

5. **Eutypella exigua** Ell. et Ev. in Berl. Ic. fung. III, p. 58 t. 73. 1899 — Stromate effuso, crustaceo, a matrice bene distincto, peridermio tecto vel etiam cortice immerso, undulato; acervulis minutis, vix prominulis, subsparsis; peritheciis 3-8 in quoque acervulo parenchymate et fibris corticis immersis; collis elongatis, convergentibus, cylindraceis vel subclavatis; ostiolis fasciculatim erumpentibus, teretibus, sæpius sat elongatis, nigris, 4-sulcatis, rugosis; ascis clavatis breviuscule stipitatis, 14-18 \times 5-7 p. spor.; sporidiis cylindraceis, valde curvatis 3,5 \times 1,5, pallide viridulis.

Hab. ad corticem Ulmi, London, Canada Amer. bor. et Vimercate Ital. bor.

6. **Eutypella tetraspora** Berl. Ic. fung. III, pag. 75, t. 93, f. 1. — 1900 Stromate parco, crustaceo, extus rugoso-scruposo, nigro, peridermio tecto, tantum circa acervulos evoluto, tenui, intus sordide luteo, pruinoso, inferne e cortice denigrato formato; acervulis verruciformibus subsparsis, peridermio transverse rupto arcte cinctis, magnis, ovoideis, usque 5 mm. long.; peritheciis in quoque acervulo 4-6 subinde circa stroma circinantibus, discretis v. sat dense sed irregulariter stipatis, superne pruina, basi cortice denigrata, immersis, globulosis v. oblongis matua pressione subinde parum compressis, in collum pro situ plus minusve elongatum productis; ostiolis vix exsertis integris; ascis copiosissimis, clavatis, breviter stipitatis, 17-20 \times 4-6, tetrasporis; sporidiis allantoideis, bi-triguttatis, 9-11 \times 2-3,5.

Hab. in ramis Elæagni angustifoliæ prope Berolinum (Sydow). — Inter *Calosphaeriam* et *Eutypellam* fere media.

7. *Eutypella Sheariana* Berl. Ic. fung. III, p. 68, t. 83, f. 1, *Diatrype* 1901
trype albo-pruinosa Shear, New York Fung. exsicc. n. 576, non
 Schwein. — Stromatibus pulvinatis, extus fusco-fuligineis vel ni-
 gricantibus cortice linea nigra serpente circumscriptis, ovoideis v.
 suborbicularibus, 1-3 mm. longis, gregariis, erumpentibus, perider-
 mio circum circa cinctis; peritheciis in quoque acervulo 3-9 ovoi-
 deo-sphæroideis, mutua pressione angulatis, collis brevibus vel
 subinde satis elongatis præditis, pruina immersis; ostioliis vix exser-
 tis, tri-tetragonis; ascis clavatis, 45-55 \times 6-8 p. sp.; sporidiis allan-
 toideis, 14-16 \times 4-5, saturate lutescentibus.
- Hab.* in ramis Salicis, Long Pine, Nebraska Amer. bor.
8. *Eutypella Zelkowæ* P. Henn. in Engl. Jahrb. 1902, XXXII, p. 42. 1902
 — Acervulis erumpentibus prominulis, 1-1½ mm. diametro, stro-
 matibus immersis, atris ex 6-15 peritheciis ovato-rotundatis con-
 stantibus, collo brevi-cylindræo, ostioliis capitellatis 3-4-sulcatis,
 atris; ascis clavatis vertice obtusiusculis, basi attenuato-pedicellatis,
 24-30 \times 4; 8-sporis; sporidiis subdistichis allantoides obtusiusculis,
 curvulis, hyalino-subfuscescentibus, 4-5 \times 1-1½.
- Hab.* in trunco emortuo Zelkowæ acuminatæ, Tokio Ja-
 ponie in horto bot. (S. KUSANO).
9. *Eutypella scoparioides* Pat. Bull. Soc. Mycol. 1902, pag. 302. — 1903
 Acervulis erumpentibus, prominulis 500 μ . diam.; peritheciis mo-
 nostichis, stromate albido, absque linea nigra limitato, immersis,
 globosis, atris, vix 250 μ . latis, 8-12 tantum in singulo stromate,
 collis erectis brevibus, dense stipatis, circinantibus ac convergen-
 tibus, ostioliis obtusiusculis, aterrimis, quadrisulcatis; ascis oblon-
 gis, minutis, longe pedicellatis, p. sporif. 13-15 \times 4-5, octosporis;
 sporidiis minutis 3-4 \times 1, cylindræo-curvulis, biguttulatis, in
 cumulo lutescentibus.
- Hab.* ad cortices, Hakodate, Yeso Japonie (FAURIE). — *Eut.*
scoparice (Schw.) Ell. et *Eut. microcarpæ* Ellis affinis.
10. *Eutypella æquilinearis* (Schw.) Starb. Sphær. imp. cogn. p. 15,
 Berl. Ic. fung. III, p. 77, *Sphæria æquilinearis* Schw. — Syll.
 fung. II, pag. 376. — Asci anguste cylindræo-clavati vix pedi-
 cellati, 25-30 \times 5-6 p. sp.; sporidia allantoides, rarissime subrecta,
 7-8 \times 1,5-2, hyalino-flavescentia.
11. *Eutypella cerviculata* (Fr.) Sacc. — Syll. I, p. 239. — Hue du-
 cendæ sunt sec. Ell. et Ev. Journ. of Mycol. 1902, VIII, p. 14:
Diatrype megastoma Ell. et Ev. — Syll. IX, p. 475 — et *Euty-*
pella alpina Ell. et Ev. — Syll. XIV, p. 485.

VALSELLA Fuck. — Syll. I p. 158, IX p. 464, XI p. 275.

1. **Valsella Saccardoi** Berl. Ic. fung. III, tab. 131, f. 1. — *Stroma-* 1904
tibus gregariis, cortice innatis, pustulatim elevatis, orbiculato-co-
nicis, disco plano ostioliis (18-20) vix emergentibus punctato; pe-
ritheciis ovoideis, monostichis, in collum cylindraceum aequilongum
productis; ascis crasse clavatis, apice rotundatis brevissime tenua-
to-stipitatis, 34-38 \times 9-12, polysporis; sporidiis allantoideis, con-
globatis, 9-11 \times 2-2,5, vix v. non guttulis, hyalinis.

Hab. in corticibus, Keren Abyssiniæ socia *Cryptovalsa tenella*
(PENZIG). — A *Valsella myriothea* Pass. saltem a diagnosi et
icone videtur differre ascis sporidiisque multo majoribus: an ta-
men mensuræ Passerinianæ exactæ?

CRYPTOVALSA Cés. et De Not. — Syll. I p. 187, IX p. 471, XI
p. 276, XIV p. 487, XVI p. 426.

1. **Cryptovalsa macrospora** (Sacc.) Trav. in litt. *C. ampelina* var. *ma-* 1905
crospora Sacc. ap. Abb. Allesch. Cryptov. p. 42 (Malp. 1902) *C.*
ampelina Abb. l. c. nec Nits. et Fuck. — Stromate effuso, nigro,
subcorticali v. in ligno serpente, circa perithecia acervulatim col-
lecta elevato, corticem inquinante; acervulis prominentibus, ro-
tundatis v. ellipticis, distinctis; peritheciis numerosis mono-dist-
ichis, cortice imo immersis vel ligno adnatis, majusculis, mutua
pressione angulatis, erectis in collum longiusculum attenuatis;
ostioliis valde exsertis, integris; ascis clavatis, longe pedicellatis,
45-55 \times 10-13 p. sp.; sporidiis allantoideis, luteo-fuscescentibus,
9-12 \times 3-4.

Hab. in sarmentis *Vitis viniferae* in Italia bor. — Ab
affini *C. Rabenhorstii* differt præcipue acervulis magis distinctis
et tumidis, collis longioribus, ostioliis non sulcatis.

2. **Cryptovalsa pirina** Ell. et Ev. in Journ. of Mycol. 1903, p. 167. 1906
— Stromatibus effusis, in ligno nigrificato insidentibus; peritheciis
ovato-globosis, valsoideis, 4-8-congestis, ostioliis brevibus, integris
vel sulcatis, obtusis vel subconicis, erumpentibus, collapsis donatis;
ascis polysporis, longe filiformi-pedicellatis, p. spor. 65-70 \times 10-
12; sporidiis allantoideis, luteolis, subcurvulis, 11-13 \times 1,5-2.

Hab. in ramis emortuis Piri coronariæ, River Forest, Il-
lin., Amer. bor.

3. **Cryptovalsa Rabenhorstii** (Nits.) Sacc. — Syll. fung. I, p. 190. — 1907
var. *Rosarum* Sacc. apud Abbado, Allescherina e Cryptov. p. 41
(Malp. 1902). — Stromate ligneo; acervulis gregariis; peritheciis

distichis in collum longiusculum productis; ascis 45-55 \times 11-13; sporidiis 11-12 \times 3,5-4.

Hab. in ramis Rosæ caninæ in Italia et Germania (SACCARDO et REHM). — Var. *subendoxyla* Sacc. apud Abbado, Allescherina e Cryptov. p. 41 (Malp. 1902). — Stromate ligneo, corticem inquinante; peritheciis parvis, acervulatum collectis, pruina alba indutis, ligno immersis vel etiam cortice immersis et ligno adnatis, in collum brevissimum productis; ascis ut in typo; sporidiis 12-14 \times 4. — In ramis Celtidis australis in Italia. — var. *eutypelloidea* Sacc. apud Abbado, Allescherina e Cryptovalsa p. 41 (Malpighia 1902). — Stromate corticali, circa perithecia acervulatum collecta elevato; acervulis pustuliformibus, distincte rotundatis, peridermio elevato et circa ostiola aggregata laciniatum rupto cinctis; peritheciis cortice immersis v. ligno adnatis, pruina luteo-ferruginea superne indutis, in collum breve crassum productis; ostiolis incrassatis, quadrisulcatis, prominulis; ascis late clavatis, superne rotundatis, p. sp. 48-53 \times 12-14; sporidiis saturate viridi-luteis, allantoideis, 11-13 \times 3-4. — In ramis Rhamni cathartici, Selva (Treviso) Italiæ borealis.

EUTYPA Tul. — Syll. I p. 162, IX p. 466, XI p. 275, XIV p. 486, XVI p. 424.

1. *Eutypa Tarrietii* P. Henn. in Hedw. 1903, p. (81). — Stromatis 1908
bus sub epidermide nidulantibus, carbonaceis, atris, ca. 1-3 mm. diam.; peritheciis 5-20 subglobosis, ostiolis erumpentibus, subclavatis, flexuosis, rigidis, atris vertice plus minus incrassatis, obtusis, ca. 200-400 \times 80-100; ascis subclavatis v. fusoideis, octosporis, p. sp. 12-15 \times 2,5-3,5; sporidiis distichis cylindraco-curvatis, utrinque obtusis, hyalino-fusculis, 4-5 \times 0,5-0,8.

Hab. in ramis emortuis Tarrietii, South Queensland Australiæ (PRITZEL).

2. *Eutypa Kusanoi* P. Henn. Engl. Jahrb. 1902, XXXII, p. 43. — 1909
Acervulis longitudinaliter dispositis erumpentibus, elongatis, epidermide atrata, fissa cinctis, c. 2-6 mm. longis, 1 mm. latis, stromate immerso, flavo; peritheciis numerosis usque ad 40 vel 60, subglobosis, minutis, atris, ostiolis rotundatis annulato-pertusis atro-nitentibus; ascis clavatis apice obtusis, 8-sporis, 18-24 \times 4½-5 paraphysatis; sporidiis distichis cylindracois vel subfusoideis, curvulis, utrinque obtusis, continuis, hyalinis, 6-8 \times 1½.

Hab. in culmis emortuis Bambusæ, Formosa Japoniæ (S.

KUSANO). — Affinis *E. bambusinae* sed stromate flavo, sporidiis non guttulatis etc. diversa.

3. *Eutypa hypoxantha* (Lév.?) Starb. Ascom. Regn. Exped. in Vet. 1910 Akad. Handl. 25, III, p. 63. Ita nuncupanda, probabiliter, *Sphaeria hypoxantha* Lév. — Sacc. Syll. II, p. 395 — quæ sec. diagn. Lév. differret sporidiis ovoideis curvulis, quod ex imperfecta observat. microscop. pendere potest. Sec. Starb. vero sporidia sunt allantoidæa 9-10 \approx 1,5 (ex err. typ. 4;5) fuscidula; asci 30 \approx 6.

Hab. in culmis Bambusæ in Brasilia (LINDMAN, BARBOSA). — Ubi species a Leveilleana differret, dicenda est *E. Barbosæ* v. Höhn. Hedw. 1901, p. (104).

PERONEUTYPA Berl. Ic. fung. III, p. 80 (1902) *Eutypa*, *Diatrype* Auct. p. p. (Etym *perone*, fibula). — Stroma effusum crustaceum, atrum, corticale vel ligneum, Perithecia tecta discreta gregaria vel subsparsa, numquam acervulata, subglobosa, monosticha in colla prælonga, cylindræa, ostiolis integris v. sulcatis coronata producta. Asci clavulati, longe stipitati, octospori. Sporidia allantoidæa, minuta, chlorina. — Est *Eutypa* collis prælongis. Huc ducentæ species sequentes: *P. corniculata* (Ehrb.) Berl., *P. bellula* (Desm.) Berl., *P. heteracantha* (Sacc.) Berl. l. c. cum iconibus.

1. *Peroneutypa cylindrica* (K. et C.) Berl. Ic. III, p. 82, *Calosphaeria* 1911 K. et C. — Syll. I, 98. — var. *Leopoldina* Rehm, Asc. n. 1537, Hedw. 1904, pag. (32). — Stromate late effuso, peridermio tecto, cortici interiori innato, a corticis substantia heterogeneo, crustaceo, crasso, atro; peritheciis valsiformiter 8-10-monostiche congregatis, in acervulis hemisphæricis vel subglobosis, 3-4 mm. diam. atris, carbonaceis, oblongis, 1 mm. diam., rostris per rimam peridermii erumpentibus, fascicularibus, tereti-cylindræis, apice obtusis, glabris, plerumque parallele erectis, demum divergentibus 1-2,5 mm. longis; ascis clavatis, vix stipitatis, 10-20 \approx 4-5, octosporis; sporidiis bacillaribus, curvatulis, utrinque obtusis et minutissime 1-guttulatis, subhyalinis 4-5 \approx 2; paraphysibus nullis.

Hab. in ramis emortuis, Sao Leopoldo, Rio grande do Sul Brasiliæ (Prof. J. RICK).

PERONEUTYPELLA Berl. Ic. fung. III, p. 82 (1902) (Etym. a *Peroneutypa*, cui affinis). — Stroma effusum, crustaceum, atrum, peridermio v. epidermide tectum. Acervuli plus minus tumidi, subinde erumpentes. Perithecia in quoque acervulo plus minus numerosa,

mono-polysticha, in collum prælongum apice ostiolo integro v. sulcato coronatum producta, subglobosa. Asci clavati longe stipitati. Sporidia allantoidea, chlorina. — Est *Eutypella rostellata* v. *Peroneutypa* acervulata. — Huc ducendæ species sequentes: *P. isariophora* (Nits.) Berl., *P. cylindrica* (K. et Cooke) Berl., *P. corynostoma* (B. et R.) Berl., *P. microcarpa* (E. et Ev.) Berl., *P. clavulata* (Cooke) Berl., *P. aurantiicola* (Speg.) Berl., *P. scoparia* (Schw.) Berl., *P. capillata* (E. et Ev.) Berl., *P. comosa* (Speg.) Berl. l. c. cum iconibus.

1. *Peroneutypella longirostrata* (P. Henn.) Sacc. et D. Sacc. *Valsa* 1912
longirostrata P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 63.
 — Stromatibus sub cortice nidulantibus, atro-crustaceis effusis; peritheciiis gregarie cæspitosis, globulosis vel ovoideis, 0,5-0,8 mm. diam. atro-carbonaceis, ostiolis (3-15) fasciculato-erumpentibus, teretibus, subulatis, atris, apice obtusiusculis rigidis, erectis, 2-3 mm. longis, 100-120 μ . crassis; ascis subclavatis, longe stipitatis (plerumque evanescentibus) 8-sporis?, aparaphysatis; sporidiis subdistichis, cylindræis, curvulis, obtusis, hyalinis v. dilute fuscidulis, $3\frac{1}{2}$ -4 \approx 0,5-0,7.

Hab. in ramis corticatis arborum, Rio Juruá, Juruá-Miry Amazoniæ.

ENDOXYLA Fuck — Syll. I p. 181, IX p. 469, XI p. 275.

1. *Endoxyla microspora* Ferraris in Malpighia 1903, pag. 9 (extr.). 1913
 — Stromate ligno innato, cinerescenti; peritheciiis ligno, superficie nigrificato, tectis, sparsis, globosis, 350-360 \approx 430-440, ostiolis majusculis prominentibus; ascis anguste clavatis longe pedicellatis, octosporis, 20-24 \approx 5-6 p. sporif.; sporidiis distichis, subfuscis, curvulis, 7-8 \approx 1,5-2.

Hab. in ramo sicco, decorticato Abietis, Valle della Thuile Italiæ bor.

2. *Endoxyla comata* Starb. in Arkiv för Botan. 1904, Band 2, p. 19. 1914
 — Stromate nullo; peritheciiis monostichis, ligno plane insculptis, sphæroideis, 500 μ . diam. per peridermium ostiolis cylindricis nigris nitidis erectis erumpentibus, hinc inde gregariis, pilis fasciculatis, interdum etiam interpositis plerumque coronatim cinctis, peridermii laciniis (1-8) arcte cinctis; contextu coriaceo-molli olivaceo-nigro minute dense parenchymatico; ascis late clavatis v. cylindræis, longissime pedicellatis p. sporif. 13-20 \approx 3,5-5; sporidiis

octonis, conglobatis, allantoideis, $4-6 \approx 1-1,5$; paraphysibus mox confluentibus massa pellucida ascos omnino obvallantibus.

Hab. in ligno corticato, Porto Alegre, Rio Grande do Sul Brasilæ. — Corona pilorum et minutie ascorum prædistincta species.

DIATRYPE Fr. — Syll. I p. 191, IX p. 472, XI p. 276, XIV p. 487, XVI p. 426.

1. **Diatrype americana** Ell. et Berl. in Berl. Ic. fung. III, pag. 94, 1915 t. 117, f. 2, *D disciformis* v. *americana* Ell. N. A. F. exs. n. 490.

— Stromatibus sparsis vel subapproximatis, erumpentibus, discoideo-orbicularibus, superne quandoque convexulis, sed vulgo planis, fusco-fuliginosis, peridermio laciniatim rupto arcte cinctis, centro rufescenti-fuscis, ob ostiola minuta, parum v. vix exserta, punctiformia, distincte 3-4-gona, atra asperulis, intus albicanti-furfuraceis; peritheciis in quoque stromate 10-20 sat stipatis, monostichis, collo brevi instructis, oblongis, compressis; ascis clavatis $30-35 \approx 6-8$ p. sp.; sporidiis allantoideis, $10-12 \approx 2-2,5$, lutescentibus.

Hab. in ramis Magnoliæ et Quercus albæ, New Jersey et South Carolina Amer. bor. (in herb. Berol. sub nom. «*Diatrype virescens* »).

2. **Diatrype Bonæ-Spei** Berl. Ic. fung. III, p. 87, t. 106, f. 2. — 1916

Stromate effuso, peridermio tecto, hinc inde inflato et acervulos gregarios conoideos pulvinatos, rugulosos, intus albo-pruinosos efformante; peritheciis in quoque acervulo haud nimis numerosis, pruina ceracea immersis, globuloso-ovoideis, in collum longiusculum attenuatis; ostiolis parum exsertis, incrassatulis, integris; ascis clavatis, $35-45 \approx 6-8$ p. sporif.; sporidiis allantoideis, $9-11 \approx 2-2,5$, subhyalinis.

Hab. in ramis indeterminatis ad Caput Bonæ-Spei Africae (MAC OWAN) in herb. Berol., sub nomine err. «*Diatrype capensis* »).

3. **Diatrype nigerrima** E. et Ev. Journ. of Mycol. 1904, p. 170. — 1917

Stromate superficiali effuso, tuberculoso-rugoso, extus nigro, intus albo; tuberculis $1-1,5$ mm. diam. v. conflendo $0,5-1$ cm. diam.; peritheciis monostichis, globosis vel ovoideis, confertis, minutis $250-300 \mu$. diam., sursum in collum breve tenuatis; ostiolis 8-10, congestis subglobosis conos minutos in superficie stromatis formantibus; ascis lanceolatis, apice demum rotundatis parte spor. $25 \approx 3-4$; sporidiis octonis, allantoideis, fumose hyalinis, curvulis $8-10 \approx 1-2$.

Hab. in cortice Vitis, Glencoe Illinois Amer. bor. (HARPER).

DIATRYPELLA Ces. et De Not. — Syll. I p. 200, IX p. 477, XI p. 277, XIV p. 488, XVI p. 427.

1. *Diatrypella rimosa* Shear in Bull. of the Torr. bot. Club. 1902, 1918 p. 454. — Stromatibus sparsis vel interdum gregariis, erumpentibus, fere ellipticis vel suborbicularibus, intus albidis, 1-3 mm. long., basi paullo constrictis, zona nigra circumscriptis, erumpentibus, disco plano vel convexulo, levibus, indistincte 4-sulcato-ostiolatis, transverse rimosis; peritheciis 5-15, 1-seriatis, globosis vel mutua pressione angulosis; ascis elongato-clavatis, longe stipitatis, paraphysatis, 90-135 \times 6-7 (p. spor. 60-70 \times 6-7); paraphysibus filiformibus, pluriguttulatis; sporidiis luteo-brunneis, parce curvatis, numerosis, 5-7 \approx 1,5.

Hab. in ligno Alni spec. Wallowa Lake, Oregon Amer. bor.

— *D. discoideæ* var. *Alni* Cooke affinis.

2. *Diatrypella orgaoensis* P. Henn. in Hedw. 1904, pag. 88. — Stro- 1919 matibus erumpenti-superficialibus, cortice fissis circumdatis, pulvinatis, atris, subnitentibus vel opacis, rugulosis, ostioliis verrucoso-prominulis 1,5-2 mm. diam.; peritheciis subglobosis immersis; ascis longe clavatis vel fusoideis, pedicellatis, apice rotundatis, p. spor. 20-28 \times 3,5 polysporis; sporidiis cylindraceis, curvulis, utrinque obtusis, 5-6 \times 0,6-0,7 μ . fuscidulis.

Hab. in corticibus Leguminosæ? cujusdam, Serra dos Orgaos, Rio de Janeiro Brasilæ (E. ULE).

3. *Diatrypella vetusta* Ell. et Ev. in Journ. of Mycol. 1903, p. 168. 1920 — Stromatibus dense sparsis, erumpenti-superficialibus 0,8-1,5 mm. diam., nigris, subprominentibus, obtusis, levibus, ostiolatis; ascis clavato-cylindraceis, 75-80 \times 8-10; sporidiis allantoideis, luteis, dense congestis, subcurvulis, utrinque obtusis.

Hab. in ligno decorticato, emortuo, River Forest, Illin. Amer. bor.

4. *Diatrypella xanthostroma* Ell. et Ev. in Journ. of Mycol. 1903, 1921 p. 225. — Stromatibus tuberculari-erumpentibus, 2-4 mm. diam., nigris; peritheciis 4-10 in singulo stromate congestis, globosis v. lateraliter compressis, 500 μ . diam. superne abrupte contractis, ostiolo papilliformi, conico pertuso, brevi donatis; ascis clavato-oblongis 55-65 \times 8-10, polysporis; sporidiis allantoideis, luteo-hyalinis, subcurvulis, 9-10 raro 9-12 \times 2.

Hab. in ramis emortuis Piri japonicæ, London, Canada Amer. bor.

Sect. 2 Hyalosporæ.

GLOMERELLA Schrenk et Spauld. Science N. S. XVII, 1903, p. 750, *Gnomoniopsis* Stonem. — Syll. XVI, p. 452 — nec Berl. (1892). Species sunt: *Glom. cingulata* (Ston.) S. et Sp. l. c. — *Gl. piperrata* (Ston.) S. et Sp. l. c. — *Glom. cincta* (Ston.) S. et Sp. l. c. — *Glom. rubicola* (Ston.) S. et Sp. l. c. — *Glom. fructigena* (Clint.) Sacc. (*Gnomoniopsis fructigena* Clint. Bull. of Ill. Exp. St. Urbana, 1902). Cll. Schrenk et Spaulding specierum paternitatem adscribunt auctoribus, qui status conidicos (*Glæosporium* et *Colletotrichum*) tantum descripserunt, st. ascophorum ne quidem suspicantes; quod nobis injustum et falsum videtur. Etiam incorrectum et prope ridiculum videtur scribere *Glomerella cinctum* nec *Gl. cincta* et multa alia similia (ut nonnulli botanici americani) ex eo quod status conidiophorus est *Glæosporium cinctum* e gen. neutro.

LÆSTADIA *) Auersw. — Syll. I p. 420, IX 577, XI p. 289, XIV p. 516, XVI p. 455.

1. *Læstadia Berberidis* Delacr. — Syll. IX, p. 584. — var. *Spirææ* 1922 Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 254. — A typo differt peritheciis nigris nec brunneis, 100–180 μ . diam.; ascis oblongo-ellipsoideis, 55 \times 13–15, nec clavatis sporidiisque levibus, nec granulosis, 21–18 \times 5–5,5.

Hab. in ramulis siccis *Spirææ* spec. Luxemburg.

2. *Læstadia Briosiana* Magnaghi, Contrib. Micol. Ligustica pag. 3. 1923 (Atti Ist. Bot. Paris vol. VIII, 1902). — Peritheciis subepidermicis, dein erumpentibus, copiosis, sparsis v. aggregatis, globoso-depressis, nigris, 140–150 μ . diam.; ascis elongatis, breve stipitatis, aparaphysatis 45–46 μ . long., octosporis; sporidiis oblongo-fusoideis, utrinque acutis, 17–19 \times 8–9, hyalinis, intus granulosis.

Hab. in ramis emortuis *Puerariæ* spec., Cornigliano, Liguria.

3. *Læstadia mirabilis* Fl. Tassi Bull. Lab. Ort. Bot. Siena 1901, IV, 1924 p. 7. — Peritheciis sparsis, nigris, epidermide velatis, nitidis, 80–

*) Quod ad nomen *Læstadiæ* pertinet efr. Syll. fung. XI pag. 289 (nota). Rationibus ibi datis, etiam nomen *Guigniardia* Viala et Rav. (1892) superfluum evadit.

100 μ . diam.; ascis clavulatis, subsessilibus, 50-60 \times 10-15; sporidiis distichis, ellipsoideis, continuis, utrinque minute pluriguttulatis, 10-12 \times 4 hyalinis.

Hab. in caulibus putrescentibus *Mirabilis* Jalapæ, in horto botanico Siena Italiæ centr.

4. *Læstadia rosicola* (Feltgen) Sacc. et D. Sacc. *Guignardia rosicola* 1925
Feltgen Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 254. — Peritheciis gregariis epidermide immutata, pustulata, tectis, depresso-globosis, siccis infra concavis, ostiolo minuto, acuto erumpentibus 200-300 μ . diam.; ascis oblongo-clavatis, apice rotundatis, tenuato-stipitatis, fasciculatis, 4-6-8-sporis, 21-27 \times 5,5-7; sporidiis distichis oblongis vel ellipsoideis, continuis, hyalinis, eguttatis, 4-5 \times 2-2,5.

Hab. in ramis siccis, corticatis *Rosæ* caninæ, Luxemburg.

5. *Læstadia Oxyriæ* Rostr. Islands Svampe in Bot. Tidsskrift, Copenhagen 1903, p. 300. — Peritheciis cauliculis, gregariis, minutissimis, lenticularibus; ascis fusideo-clavatis, paraphysatis, 35-40 \times 6, octosporis; sporidiis fusideo-oblongis, 9-10 \times 2-3.

Hab. in caulibus *Oxyriæ* digynæ, in Islandia.

6. *Læstadia insidiosa* Massee, Kew. Bull. 1901, p. 157. — Peritheciis epiphyllis, semiimmersis, discoideis, atris, plus minus dense aggregatis, astomis, 300-350 μ . diam.; ascis clavatis sæpe curvatis, apice obtusatis, octosporis 150 \times 20; sporidiis distichis oblongo-ellipticis, hyalinis continuis (an semper?), 21-25 \times 6-7; paraphysibus nullis.

Hab. in foliis *Medicaginis sativæ* in Tasmania.

7. *Læstadia circumscissa* Sacc. Notæ mycol. in Syd. Ann. Mycologici 1903, n. 1, pag. 24. — Maculis subrotundis oblongisque amphigenis fusco-rufescentibus, demum arescendo circumscissis et dilabentibus; peritheciis subcutaneo-erumpentibus, gregariis, plerumque epiphyllis, globoso-lenticularibus, membranaceis, nigricantibus, glabris, 90-120 μ . diam., poro impresso pertusis; ascis tetrati-clavatis, 50-65 \times 9, apice obtusis, breve stipitatis, octosporis; paraphysibus genuinis nullis; sporidiis distichis, ovato-oblongis, sæpe inæquilateris, utrinque obtusulis, biguttatis granulosisque, 14-15 \times 5-6, hyalinis.

Hab. in foliis adhuc vivis *Pruni spinosæ*, Montello (Treviso) Italiæ bor. — Periphyses circa ostiolum radiantes angustissimæ, hyalinæ. — Nil obstat quominus hanc speciem habeamus tamquam statum ascophorum *Cercosporæ circumscissæ* Sacc. et forte quoque

Phyllostictæ circumscissæ Cooke pariterque morbum *shot-hole* generantem. Analogæ quoque sunt *Ovularia circumscissa* Sorok., *Phyllosticta Mattiroliana* Mc. Alpine (= *Ph. perforans* Sacc. et Mattirol) et *Gnomonia circumscissa* Mc. Alpine.

8. **Læstadia Veronicæ** Rostr. Islands Svampe in Bot. Tidsskrift, 1903, 1929 vol. 25, p. 300. — Peritheciis biogenis, epiphyllis, dense gregariis, lenticularibus, siccis, cupulæ instar collabentibus 200 μ . diam.; ascis clavatis; sporidiis oblongis, curvulis, fere fabæformibus, 21-25 \times 8-9, granulosis.

Hab. in foliis Veronicæ alpinæ in Islandia.

9. **Læstadia Prenanthis** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. 1930 — Maculis ellipticis vel irregularibus 3-5 mm. diam. brunneo-pallidis, linea subtilissima marginatis, peritheciis hypophyllis, sparsis, semierumpentibus, minutis, 50-60 μ . diam.; ascis oblongis, subsessilibus, utrinque abrupte constrictis, 30-35 \times 6-7.; sporidiis distichis, fusoideo-oblongis, 3-guttulatis, hyalinis, 10-12 \times 3-3.5.

Hab. in foliis vivis Prenanthis crepidinæ, Alabama Amer.

10. **Læstadia Saxifragæ** Saccardo et Scalia, Harrim Alaska Exped. 1931 Crypt. p. 34, pl. IV, fig. 3. — Peritheciis epiphyllis, punctiformibus, in partibus marginalibus arescentibus foliorum sparsis, globosis, 100-130 μ . diam., poro pertusis; contextu parenchymatico fuscello; ascis cylindræis vel cylindræo-clavulatis, brevissime stipitatis, apice rotundatis, 60-80 \times 10-13, aparaphysatis, octosporis; sporidiis distichis, oblongo-ellipsoideis, utrinque acutulis, 10-13 \times 4.5-5.5, continuis, hyalinis.

Hab. in foliis viventibus Saxifragæ parvifloræ, Unalaska Alaska. — Pluribus affinis, sed videtur satis distincta. Asci tantum e basi perithecii oriundi.

11. **Læstadia prominens** (Earle) Sacc. et D. Sacc. *Guignardia prominens* Earle in Muhlenbergia, 1901, pag. 15. — Late sparsa et sæpe totum folium denique decoloratum occupans; peritheciis profunde immersis, utrinque prominulis 150-200 μ . diam.; contextu obscure parenchymatico; ostiolo indistincte pertuso sæpe parum manifesto; ascis subfasciculatis, longe tenuato-stipitatis, crasse tunicatis, parte sporifera 50-60 \times 25; paraphysibus nullis; sporidiis octonis inordinatis, hyalinis, continuis, ovoideis, 25 \times 10, crasse tunicatis.

Hab. in foliis vivis *Ægiphilæ martinicensis* ex Verbenaceis, prope Santurce Portorico.

12. **Læstadia Ari** Ell. et Ev. in Journ. of Mycol. 1902, p. 67. — 1933

Maculis subcircularibus, superne intense griseis, inferne brunneis 1 cm. diam., nigro-marginatis; peritheciis epiphyllis dense sparsis in parte centrali macularum, 100-110 μ . diam. subcuticularibus vel erumpentibus; ascis oblongo-cylindræis, breve stipitatis 40-50 \times 7-8; paraphysibus rudimentalibus; sporidiis distichis, subnavicularibus 2-3-nucleatis, hyalinis, obtusis, 8-10 \times 3,5-4,5.

Hab. in foliis vivis *Ari arifolii* (quid?), Alabama Americæ.

— *Habitus Vermiculariæ trichellæ.*

13. *Læstadia Tofieldiæ* Fl. Tassi Bull. Lab. Ort. Bot. Siena, 1901, 1934
IV, p. 7. — Peritheciis dense gregariis, globoso-depressis, pertusis, nigris, epidermide tenuiter velatis 60-70 μ . diam.; ascis clavatis, sessilibus 40-50 \times 8-10; sporidiis distichis, ovato-oblongis, 14-16 \times 5-6, hyalinis.

Hab. in foliis emortuis *Tofieldiæ borealis*, in Groenlandia.

14. *Læstadia seriata* (Bäumler) Sacc. et D. Sacc. *Guignardia seriata* 1935
Bäumler Beitr. z. Cryptog. Fl. des Presburger Com. 1902, p. 27. Peritheciis immersis, tenui-membranaceis applanatis, obsolete ostiolatis 50-70 μ . diam., contextu minute parenchymatico, brunneo; ascis brevissime stipitatis, saccatis, octosporis, 36-45 \times 10-12, basi fasciculatis; sporidiis ovoideis, utrinque rotundatis, deorsum leviter tenuatis, rectis, hyalinis, inordinatis, 10-12 \times 3-3,5.

Hab. in vaginis vetustis *Phragmitis communis* in Com. Presburg Hungariæ.

15. *Læstadia alaskana* (Reed) Sacc. et D. Sacc. *Guignardia alaskana* 1936
Reed, Harrim Alaska Exped. Crypt. pag. 34, t. VII, Univ. Cal. Publ., Bot. I, 154, 161, pl. 15, 16. — Peritheciis laxè gregariis, innatis, globulosis, ostiolo impresso vix erumpentibus, 180-200 μ . diam.; ascis fusoides brevissime obtuse stipitatis, apice obtuse attenuatis, paraphysatis, octosporis 42-45 \times 15-16; sporidiis subdistichis, ellipsoideis, utrinque rotundatis, continuis, eguttulatis, hyalinis, 10-12 \times 4-4,5.

Hab. parasitica in *Prasiola boreali*, Springs, Baranos Island, Alaska (TRELEASE) et Kadiak, Unalaska. — Vix diversa a *L. Prasiolæ* Wint. — Syll. IX, p. 589.

Paralæstadia Sacc. Species lichenicolæ.

16. *Læstadia verrucicola* (Wedd.) Sacc. et D. Sacc. *Sphæria verrucicola* 1937
Wedd. Nouv. Rev. des Lich. 1873, p. 22. — Peritheciis 50-100 μ . diam., immersis, nigris; ascis octosporis, paraphysibus nullis

obvallatis; sporidiis unicellularibus ellipsoideis, hyalinis, 18-30 \times 10-15.

Hab. in thallo *Aspiciliæ* cinereæ v. albæ, Agde Galliæ.

17. *Læstadia conductrix* (Norm.) Sacc. et D. Sacc. *Verrucaria conductrix* Norm. Flora 1866, p. 284. — Peritheciis erumpentibus, 120-150 μ . diam. subglobosis, nigris, nitidulis, ostiolo simplici demum pertusis; ascis octosporis jodo rubro-tinctis, aparaphysatis, 50 μ . long.; sporidiis continuis, hyalinis, 10-12 \times 3, elliptico-fusoideis, intus granulosus. 1938

Hab. in thallo *Psoræ* luridæ prope Tromsø Norvegiæ. — Ob reactionem jodi potius lichen, observante auctore.

SPOLVERINIA Mass. in Flora 1856, n. 18 (Etym. a March. J. B. SPOLVERINI (1695-1759) veronensi, qui poetice scripsit « La coltivazione del riso »). — Perithecia punctiformia, sicca depressa, uda turgescencia subglobulosa, clausa, dein apice irregulariter fatiscentia; contextu tenui, membranaceo-carnosulo. Asci ampli vesiciformes, omnino aparaphysati, 1-2-spori. Sporidia ovoidea, magna, continua, hyalina v. pallide colorata. — In hypothecio adsunt gonidia quædam testib. Mass. et Körb., tamen ob vitam parasiticam in thallis alienis, forte gonidia non sunt propria. Cl. Heufler aliique ad fungos, rectius forte, genus referunt.

1. *Spolverinia punctum* Mass. l. c., Sched. crit. p. 61, Lich. exs. n. 59. 1939
— Peritheciis perexiguis, castaneo-cervinis, parasiticis, udis subsphaericis, solitariis, subsuperficialibus; ascis amplis, breviter stipitatis inflatis, bi-rarius unisporis, aparaphysatis; sporidiis subgloboso-ovoideis, 56-70 \times 24-36 (Beltramini) v. 24-70 \times 18-36 (Masalongo) e hyalino dilute croceis, intus nubilosis.

Hab. in thallis crustosis variis e. g. *Polyblastiæ* orbicularis, ad rupes in agro Veronensi et Bassanensi Ital. super.

PHOMATOSPORA Sacc. — Syll. I p. 432, IX p. 589, XI p. 291, XIV p. 519, XVI p. 456.

1. *Phomatospora Wistariæ* Ell. et Ev. in Journ. of Myc. 1902, p. 68. 1940
— Peritheciis fere semper epiphyllis, parvulis rotundatis, subdepressis, membranaceis 110-120 μ . diam. in maculis 2-4 mm. diam. griseis, margine nigro tenui cinctis, sæpe confluentibus insidentibus; ascis oblongis, sessilibus, 35-45 \times 10-12, aparaphysatis; sporidiis distichis, oblongo-ellipticis, hyalinis, utrinque rotundatis 12 \times 6.

Hab. in foliis *Wistariz* frutescentis, Alabama Americæ.

2. **Phomatospora Hederæ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 1941 II, p. 127. — Peritheciis sparsis v. hinc inde approximatis, basi ligno insculptis, cortice nidulantibus et epidermidem papilla brevi conica erumpentibus, depresso-globosis v. ellipsoideis, minutissimis, nigris; ascis cylindricis, tenuibus, deorsum stipitiformi-tenuatis, octosporis, $65 \times 2,5-3,5$, aparaphysatis; sporidiis monostichis oblongo-ellipsoideis vel breve cylindræis, rectis, hyalinis, $5-8 \times 2-2,5$.

Hab. in ramis siccis *Hederæ Helicis*, Luxemburg. — *Ph. Berberidis* proxime affinis.

3. **Phomatospora Elasticæ** Zimm. in Bull. de l'Inst. bot. de Buitenz. 1942 1901, p. 15. — Peritheciis amphigenis, sparsis, immersis, sine stromate, ostiolo conico vix emergentibus, nigris 120×65 , albo-papillatis; ascis brevibus, breve pedicellatis, obtusis, octosporis 45×8 ; sporidiis hyalinis, elongatis, obtuse rotundatis, 16μ . longis; paraphysibus nullis.

Hab. in foliis putrescentibus *Fici Elasticæ*, Buitenzorg, in insula Java.

4. **Phomatospora secalina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 1943 III, 1903, pag. 155. — Peritheciis gregariis vel sparsis, innatis, globosis, ostiolo acuto, minuto erumpentibus, atro-brunneis, membranaceo-carbonaceis $250-350 \mu$. diam.; contextu parenchymatico brunneo; ascis cylindricis apice obtusis, incrassatis, bifoveolatis, jodo vix tinctis, longe stipitato-tenuatis, octosporis, aparaphysatis $95-108 \times 8-10$; sporidiis recte vel oblique monostichis, raro distichis, tereti-ellipsoideis, utrinque rotundatis, rectis, continuis, biguttatis, $11-15 \times 5-6$, hyalinis.

Hab. in culmis putridis secalinis, Luxemburg. — Proxime affinis *Phomatosporæ Arenariæ*.

STIGMATULA Sacc. — Syll. I p. 543 (ut subgenus), XVI p. 454.

1. **Stigmatula applanata** Feltgen. Vorstud. Pilz. Luxemb. Nachtr. III, 1944 1903, p. 255. — Peritheciis sparsis, primo epidermide tectis, mox erumpentibus et subliberis, orbicularibus, superne convexo-applanatis, papilla minutissima donatis, basi applanatis, nigris, minute granulosis, carbonaceo-fragilibus, $200-400 \mu$. diam.; ascis teretiv-clavatis, apice rotundatis, brevissime stipitatis $87-95 \times 13-16$, 6-8-sporis; sporidiis monostichis vel subdistichis, obtuse ellipsoideis, rectis, continuis, biguttatis, hyalinis, demum flaveolis, $15-17 \times 5-6$; paraphysibus ascos superantibus, ramulosis, $1-2 \mu$. cr. hyalinis.

Hab. in ramulis et squamulis Juniperi virginianæ, Luxemburg.

PHYSALOSPORA Niessl — Syll. I p. 433, IX p. 591, XI p. 291, XIV p. 520, XVI p. 457.

1. *Physalospora borealis* Saccardo, Harrim. Alaska Exped. Crypt. p. 33, 1945 pl. IV, fig. 4. — Peritheciis laxè gregariis, subcutaneis, dein erumpentibus, globulosis, papillatis, nigris, 3-5 mm. diam., contextu parenchymatico, duriusculo, fuligineo; ascis cylindraceis, basi tenuatis brevissimeque stipitatis, apice obtusis, $70-75 \approx 5-6$, octosporis; paraphysibus parvis, brevibus; sporidiis oblique monostichis, oblongo-ovoideis, lenissime inæquilateris, $9-10 \approx 4-5$, utrinque obtusulis, intus granulosis, hyalinis.

Hab. in caulibus emortuis Anemones, sociæ *Stagonospora Pulsatillæ*, Kukak Bay, Alaska (SAUNDERS).

2. *Physalospora macrospora* Feltgen, Vorstud. Pilz. Luxemb. Nachtr. 1946 III, 1903, p. 253. — Peritheciis gregariis, confertis, omnino innatis, globosis, ostiolo papillato erumpentibus, nigris, 200-300 μ . latis; ascis ellipsoideo-clavatis, deorsum tenuato-stipitatis v. subsessilibus $75-100 \approx 25-30$, octosporis, paraphysatis; sporidiis distichis, obtuse ellipsoideis, continuis, hyalinis, biguttatis vel eguttatis, $20-32 \approx 10-13$.

Hab. in ramis, emortuis corticatis Aceris campestreis, Luxemburg.

3. *Physalospora Serjanie* Rehm, Hedw. XLIV (1904) p. 5. — Maculis 1947 plerumque epiphyllis, exsiccatione fuscatis, distincte orbicularibus, dilutissime nigris cinctis, rubro-fuscis; peritheciis 1-7 innatis, discretis, globulosis, nigris, demum in epiphyllio peridermio subtectis prominentibus, ostiolo minuto papillæformi pertuso, in hypophyllo flavidule conspicuis, subcarbonaceis 0,2 mm. diam.; ascis cylindraceis, apice rotundatis, $80-85 \approx 10-12$, 8-sporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, hyalinis, $12-14 \approx 6-7$ monostichis; paraphysibus filiformibus, hyalinis, 2-3 μ . cr.

Hab. ad folia Serjanie, Corcovado-Rio Brasilie (ULE).

4. *Physalospora Trabutiana* P. Henn. in Hedw. 1901, pag. 100. — 1948 Syll. XVI, p. 1132 (nomen). — Caulicola; peritheciis gregariis, innatis epidermide tectis, submembranaceis, globulosis, atris, ca. 0,3-0,5 mm. diam., interdum confluentibus, ostiolo erumpente prominulo, subnitenti vel pertuso; ascis clavatis, apice crasse tunicatis, rotundato-obtusis, interdum basi usque ad $30 \approx 6 \mu$. pedicellatis,

octosporis, 100-170 \approx 18-23; paraphysibus copiosis filiformibus, hyalinis 3 μ . cr.; sporidiis oblique monostichis vel subdistichis, ellipsoideis, utrinque obtuse rotundatis, interdum attenuatis v. subacutiusculis, primo nebulosis, dein 1-2 guttulatis, hyalinis v. subtiliter flavescentibus, 15-20 \approx 7-10, interdum mucosis.

Hab. in caulibus *Cachrydis tomentosa*, Algeria Afr.

5. *Physalospora Bupleuri* P. Henn. Hedw. 1902, p. 135. — Peritheciis 1949
sparsis sub epidermide nidulantibus, dein ostiolis erumpentibus, membranaceis, subglobosis, atro-brunneis; ascis clavatis, obtusis, basi attenuato-stipitatis, octosporis 50-65 \approx 6-8; paraphysibus filiformibus, hyalinis, septatis 2,5-3,5 μ . crassis; sporidiis oblique monostichis, oblonge ovoideis, interdum subfusoides, hyalinis, bi-guttulatis 5-8 \approx 3-4.

Hab. in caulibus *Bupleuri ranunculoidis*, in horto botanico Berolinensi Germaniæ.

6. *Physalospora mararyensis* P. Henn. Amaz. IV, in Hedw. 1905, 1950
p. 63. — Maculis rotundatis vel effusis sæpe confluentibus explanatis, fuscis; peritheciis sparsis vel subgregariis, punctiformibus, innato-erumpentibus, subglobosis, atro-membranaceis, pertusis; ascis fusoides vel clavatis apice attenuatis, rotundatis vel subacutiusculis, 50-65 \approx 8-10, 8-sporis; paraphysibus filiformibus, hyalinis; sporidiis subdistichis, oblonge fusoides, utrinque rotundatis, hyalinis 18-20 \approx 3 $\frac{1}{2}$ -4.

Hab. in foliis *Papilionaceæ*? cujusdam, Marary, Rio Juruá Amazoniæ.

7. *Physalospora atro-inquinans* Rehm, Hedw. XLIV (1904). — Peri- 1951
theiciis in maculis epiphyllis orbicularibus, vix decoloratis, 1 cm. lat. gregariis sub epidermide denigrata nidulantibus eamque elevantibus, globulosis, demum denudatis, poro vix perspicuo pertusis, atris, membranaceis, 0,1 mm. diam.; ascis cylindraceutis, apice rotundatis, 60-70 \approx 10-12, 4-sporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, guttulis oleosis repletis, hyalinis, 15 \approx 9 monostichis; paraphysibus subramosis, septatis, 2 μ . cr.

Hab. ad folia viva *Papilionaceæ* (*Phaseoli*) Sao Francisco Brasilæ. — Affinis *Ph. Astragali*, peritheciis mox erumpenti-nudatis dignoscitur.

8. *Physalospora Phaseoli* P. Henn. Fungi Amaz. III, 1904, p. 368. 1952
— Maculis rotundatis vel confluentibus, flavidis; peritheciis epiphyllis gregarie sparsis, sublenticulari-globulosis innatis, papilla atra erumpentibus, subatro-membranaceis, ca. 50-70 μ . diam.; ascis

clavatis, obtusis, 8-sporis, paraphysatis, $40-60 \times 10-15$; sporidiis subdistichis vel oblique monostichis, late ellipsoideis vel subovoideis, hyalinis, $8-10 \times 8$.

Hab. in foliis Phaseoli, Rio Juruá St. Clara Amazoniæ.

9. *Physalospora machaeriicola* P. Henn. Fungi Amaz. II, p. 243: — 1953

— Maculis effusis brunneolis; peritheciis in maculis albidis, rotundato-vel oblongo-angulatis sparse v. gregarie erumpentibus, subhemisphæricis vel lenticularibus, pertusis, atro-membranaceis, ca. 60 μ . diam.; ascis clavatis vel fusoides, apice obtusis vel apiculatis, stipitatis, 8-sporis, $45-60 \times 8-12$; paraphysibus filiformibus hyalinis; sporidiis subdistichis, ellipsoideis vel subfusoides, hyalinis, $5-8 \times 3-4$.

Hab. in foliis Machaerii spec. Fortaleza, Rio Juruá Brasi-liæ et Tarapoto Perú.

10. *Physalospora vagans* Ell. et Ev. in Journ. of Mycol. 1902, p. 67. 1954

— Peritheciis sparsis vel 3-5-congestis, membranaceis parenchymaticis, nigris, erumpentibus, 100-200 μ . diam.; ascis clavato-cylindraceis $110-200 \times 12-20$, breve stipitatis et obscure paraphysatis; sporidiis monostichis v. distichis, ellipticis, $12-20 \times 8-12$, hyalinis; conidiis constricto-ellipticis, hyalinis, $15-20 \times 7-8$; basidiis $12-20 \times 1.5$.

Hab. in sarmentis emortuis Rubi strigosi, Alabama, Amer.

11. *Physalospora minima* Ell. et Ev. in Journ. of Mycol. 1902, v. 8, 1955

p. 17. — Peritheciis sparsis, subcutaneis, per ostium parvum erumpentibus, 80-90 μ . diam.; ascis oblongo-clavatis, breve stipitatis, paraphysatis, $40-50 \times 6$; sporidiis inordinate dispositis, ellipticis vulgo utrinque acutulis, $9-11 \times 3-4$.

Hab. in sarmentis Rubi strigosi, Tuskegee, Ala. in Amer. bor. (G. W. CARVER).

12. *Physalospora circinans* Pat. in Bull. Soc. Mycol. 1902, p. 302. 1956

— Peritheciis epiphyllis, globosis, 150-300 μ . diam., epidermide leniter nigrificata tectis, dein semierumpentibus, atris, macula fusca, orbiculari, 3-4 mm. lata insidentibus; contextu celluloso, coriaceo-membranaceo, pallide brunneo; nucleo albo; ascis cylindraceo-clavatis, sursum obtusis deorsum brevissime pedicellatis, octosporis, $60-80 \times 12-15$; paraphysibus filiformibus ramosis; sporidiis monostichis v. irregulariter distichis saepe transverse positis, ovato-rotundatis, continuis, hyalinis 9×6 .

Hab. in foliis vivis Ardisiæ spec. in Brasilia (GLAZIOU).

13. *Physalospora Escalloniae* P. Henn. in Fungi Amaz. II, p. 243: — 1953

culis atris, epiphyllis, sub epidermide gregarie nidulantibus, subglobosis, atris, membranaceis, ca. 200 μ . diam., ostiolis erumpentibus; ascis clavatis, apice rotundatis, tunicatis, octosporis, 50-70 \times 14-18; paraphysibus filiformibus, hyalinis; sporidiis subdistichis vel oblique monostichis, fusoideis, continuis, 12-18 \times 4-5, hyalinis.

Hab. in foliis Escalloniæ chlorophyllæ, S. Paulo Brasiliæ.

14. **Physalospora Lepachydis** Ell. et Ev. in Journ. of Mycol. 1902, 1958 p. 16. — Peritheciis epiphyllis, gregariis, semierumpentibus, 250 μ . circ. diam.; ostiolo papilliformi ornatis; ascis cylindraceis, breviter stipitatis, paraphysatis, 60-65 \times 8-12; sporidiis monostichis v. distichis, utrinque late obtusis, binucleatis, 10-12 \times 5-6.

Hab. in parenchymate exsiccato foliorum vivorum *Lepachydis columnaris*, Billings Amer. bor. (WILLIAMS et GRIFFITHS).

15. **Physalospora manaosensis** P. Henn. Fungi Amaz. IV, in Hedw. 1959 1905, p. 63. — Maculis sparsis vel gregariis rotundatis, alutaceis, rugulosis, 1-3 mm. diam.; peritheciis epiphyllis singularibus vel pluribus innatis, ostiolo atris, punctiformibus erumpentibus ca. 60-80 μ ., atro-membranaceis; ascis subfasciculatis, clavatis, apice rotundatis, 8-sporis, 40-45 \times 8-12; paraphysibus filiformibus, superantibus, hyalinis; sporidiis oblique monostichis vel subdistichis, ovoideis vel ellipsoideis, hyalinis, continuis, intus minute granulatis, 8-10 \times 4-5.

Hab. in foliis coriaceis Lauraceæ? frutescentis, Rio Negro, Manãos Amazoniæ. — Maculis alutaceis epiphyllis, omnino peculiaribus mox dignoscenda species.

16. **Physalospora juruana** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 1960 p. 63. — Maculis late effusis, flavido-fusculis; peritheciis hypophyllis gregariis, innatis, dein apice erumpentibus, atris, ca. 60-80 μ . subglobosis, membranaceis; ascis clavatis apice obtusis, 8-sporis, 30-40 \times 5-6, paraphysibus filiformibus, hyalinis ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis oblongis subfusoideis, hyalinis, 6-8 \times 2-2 $\frac{1}{2}$.

Hab. in foliis Lauraceæ cujusdam, Rio Jurua Amazoniæ.

17. **Physalospora Pittospori** d'Alm. et da Cam. Revista agron. Lisboa, 1961 1903, n. 4, pag. 138, tab. X, fig. 5-7. — Peritheciis sparsis, ad apicem foliorum in macula arida, epidermide tectis, demum erumpentibus, hypophyllis vel raro epiphyllis, globoso-depressis, atris, ostiolo prominulo, 150-200 \times 180-190; ascis tereti-clavulatis, brevissime stipitatis, 135-140 \times 20-25, octosporis; sporidiis submono-

stichis, ovoideis, granulosis, $20-25 \approx 7,5-12$; paraphysibus sinuosis, septatis.

Hab. in foliis *Pittospori* spec., prope Cruz Quebrada Lusitanæ (CASTRO GUEDES).

18. *Physalospora Xylomeli* P. Henn. F. Australiæ occid. I, in Hedw. 1902 1901, p. 96. — Syll. XVI, p. 1132. (nomen). — Maculis effusis, cinereis, exaridis; peritheciis sparsis innatis, erumpentibus, lenticularibus, atris, breve papillatis, epidermide fissa velatis, contextu pseudo-parenchymatico, atro; ascis cylindraceo-clavatis, apice obtusis, basi attenuatis, octosporis, $115-135 \mu$. longis, p. sporif. $110-120 \approx 10-11$; paraphysibus filiformibus, hyalinis ca. 4μ . crassis; sporidiis oblique monostichis, fusoideis, utrinque subacutis, $2-3$ -guttulatis, continuis, $16-20 \approx 7-10$ hyalinis.

Hab. in foliis *Xylomeli occidentalis*, Perth Australiæ occ.

19. *Physalospora Empetri* Rostrup. Fungi in Botany of the Faeröes 1903 1901, part. I, p. 310. — Peritheciis epiphyllis, sparsis; ascis cylindraceis; sporidiis octonis, monostichis, ellipsoideis, simplicibus, $18-20 \approx 10-12$, hyalinis.

Hab. in foliis *Empetri nigri*, Syderö, Frodebö in insulis Feroensibus Daniæ.

20. *Physalospora dissospora* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 1904 1901, II, p. 180. — Peritheciis solitariis vel 2-pluribus confertis, cortice nidulantibus, basi ligno inseulptis, ceterum subliberis, globosis, minute papillatis, membranaceo-carbonaceis, nigris, $150-200 \mu$. lat.; ascis cylindricis, rectis curvulisve, sessilibus, rarius brevissime stipitatis $52 \approx 5$, filiformi-paraphysatis; sporidiis monostichis ellipsoideis, utrinque oblique obtusatis, sæpius longitudinaliter connato-binis, hyalinis, vulgo crasse 1-guttatis minuteque guttulis vel $2-4$ -guttulatis, $8-9 \approx 4,5-5$.

Hab. in ramis emortuis *Callunæ vulgaris*, Luxemburg. — Cum *Physal. Callunæ* ne comparanda quidem.

21. *Physalospora confinis* Sacc. et D. Sacc. Atti Ist. Ven. Sc. Lett. 1905 ed Arti, tomo LXI, Venetiis 1902, p. 721. — Peritheciis sparsis v. gregariis, minutis $200-250 \mu$. diam., globosis, epidermide tectis, atris, ostiolo papillulato, epidermidem perforante; contextu peritheci cellulosi, fuligineo; ascis subcylindraceo-fusiformibus, $80-90 \approx 12-14$; sporidiis distichis v. raro monostichis, ellipticis, utrinque obtusis, $18-21 \approx 7$, granulosis, hyalinis.

Hab. in caule sicco *Amsoniæ latifoliæ*, in horto botanico Bologna Italiæ sept.

22. **Physalospora bifrons** Starb. in Arkiv. för Botan. 1904, Band 2, 1966 p. 17, fig. 40-42. — Peritheciis epiphyllis, sed utrinque manifeste prominulis, in maculis varie, interdum orbiculariter, semper indistincte determinatis, paullum pallescentibus, sine ordine sparsim aggregatis, solitariis v. interdum aliquot confluentibus, sphæroideis, contextu solidiusculo, coriaceo-carbonaceis, nigris, levibus, vix ostiolatis, 150-200 μ . diam.; ascis ovoideis vel ovoideo-fusiformibus, sessilibus, sursum lumine angustiore, membrana incrassata, 50-60 \times 14-19; sporidiis octonis, conglobatis, ovoideis vel fusiformibus, sæpe inæquilateralibus vel curvulis, interdum biguttulatis, annulo mucoso, tenuissimo, utrinque minute et oblique appendiculato præditis, apicibus obtusis, hyalinis, 19-25 \times 5-6,5; paraphysibus filiformibus, hyalinis, mucilaginosi, confluentibus, numerosis. — Spermatia bacillariba vel anguste clavulata, hyalina 10-14 \times 1,5 adsunt.

Hab. ad folia dicotyledonea in silva primæva, Colonia Elisa, Paraguay (LINDMAN). — Forma perithecorum *Ph. quercifoliæ* Ell. et Ev. affinis videtur, sporidiis tamen distincta.

23. **Physalospora varians** Starb. in Arkiv. för Botan. 1904, Band 2, 1967 pag. 18, fig. 43-46. — Maculis primo viridi-luteis vel paullum decoloratis, arescendo fuscis, vage determinatis, rotundatis 0,1-2 cm. diam.; peritheciis in maculis insidentibus, copiosioribus epiphyllis, nonnullis hypophyllis, primo innatis, dein erumpentibus, globulosis vel basi applanato-lenticularibus, dense aggregatis vel peripherice dispersis, in seriebus rectis v. curvatis partitis, pulchre ordinatis, demum confluentibus, contextu coriaceo, atratis, nitide verruculosis 200-300 μ . diam.; ascis cylindræis vel clavato-cylindræis 90 \times 13, p. spor. 55-65 μ . long. v. ovoideis sessilibusque 43 \times 19; sporidiis octonis, distincte monostichis, sæpe conglobatis, medio tristichis, late ellipsoideis, nebulosim guttulatis, 10-11 \times 7, 5-9; paraphysibus mucilaginosi, guttulatis, hyalinis.

Hab. in foliis vivis ignotis, Santa Cruz da Barra, Matto Grosso, Brasilæ (LINDMAN). — Perithecorum ordine, ascorum varia forma distincta species.

24. **Physalospora Fourcroyæ** P. Henn. in Notizbl. des Königl. bot. Gartens u. Museum zu Berlin n. 30, 1903, pag. 240. — Maculis fuscidulis effusis; peritheciis amphigenis gregariis, innatis tectis dein suberumpentibus, globoso-lenticularibus, coriaceo-subcarbonaceis, atris, cellulosis, ostiolatis dein perforatis, ca. 180-240 μ .; ascis oblonge clavatis, apice rotundatis, crasse tunicatis, basi attenuatis,

curvulis, 8-sporis, 150-180 \times 25-30, paraphysibus hyalinis, mycelioideis, ca. 3 μ . crassis; sporidiis subdistichis, oblongis, rectis vel curvulis, utrinque obtusis, hyalinis, 3-guttulatis, 20-30 \times 10-15.

Hab. in foliis *Fourcroyæ giganteæ*, Dar-es-Salâm, Afr. orient. germ. (Dr. ZIMMERMANN).

25. **Physalospora Vanillæ** A. Zimmerm. in Centralbl. f. Bakter. Abt. 1969 II, 1902, VIII, pag. 479, fig. 8. — Peritheciis numerosis sed discretis, amphigenis, primo immersis, demum erumpentibus, globosis, atro-brunneis, in ostiolum conicum crassum attenuatis, papilla pallidiore, 250 μ . altis, 120-200 μ . latis; ascis octosporis, obtusis; sporidiis tereti-fusoideis, curvatis, utrinque obtusulis, hyalinis, 24-28 \times 5-6, intus granulosis.

Hab. in foliis putridis *Vanillæ planifoliæ* in horto Buitenzorg Javæ insulæ. — A *Phys. camptospora* forma peritheciiorum in primis diversa.

26. **Physalospora Cattleyæ** Maubl. et Lasnier, Bull. Soc. Mycol. 1904, 1970 pag. 171, tab. 12. — Peritheciis sparsis vel gregariis, plerumque simplicibus, sed interdum bilocularibus, hypophyllis, rarius epiphyllis, subglobosis, ostiolo prominulo conico, 300 μ . diam.; ascis subfusoideis, utrinque attenuatis, stipitatis, 100-120 \times 11-13, octosporis; sporidiis distichis v. oblique monostichis, oblongis, plerumque inaequilateralibus et subcurvulis, pallide luteolis, 1-guttulatis granulosisque 20-25 \times 5-7; paraphysibus filiformibusasco longioribus, evanidis 3 μ . cr.

Hab. in foliis emortuis *Cattleyæ Mossiæ* in calidariis prope Parisios Galliae. — Stat. conid. *Gloeosporium Cattleyæ* quod cfr. An generi *Glomerellæ* adscribenda species?

27. **Physalospora Agaves** P. Henn. in Engl. Bot. Jahrb. 1903, p. 51. 1971 — Maculis fusciculis dein centro pallidulis, effusis; peritheciis amphigenis gregariis, globoso-lenticularibus, innatis, epidermide tectis, vix erumpentibus, ostiolo brevissimo dein perforatis, atris, coriaceis; ascis clavatis, apice tunicatis, rotundatis, 8-sporis 80-100 \times 20-25; sporidiis distichis, oblonge ellipsoideis, utrinque obtusis, hyalinis, 26-32 \times 10-12.

Hab. in foliis *Agaves sisalanæ*, Dar-es-Salam-Zanzibar Afr. orient. (ZIMMERMANN).

28. **Physalospora Alismatis** Feltg. Vorst. Pilz. Luxemb. Nachtr. II, 1972 1901, p. 179. — Peritheciis sparsis, innatis, demum vertice erumpentibus, globosis, basi applanatis, siccis leniter collapsis, minute papillatis, nigris, 200 μ . cr.; ascis clavatis, apice obtusis, basi ob-

tus^o tenuatis, 40-45 \times 7-8, octosporis; sporidiis distichis, oblongo-ellipsoideis cylindraceutis, utrinque obtusis, continuis, hyalinis, biguttulatis 8,5-10 \times 2,5; paraphysibus filiformibus, apice leviter incrassatis (1,5 μ .), ascos vix superantibus, hyalinis.

Hab. in caulibus siccis *Alismatis Plantaginis*, Luxemburg.

29. *Physalospora microspora* Feltg Vorstud. Pilz. Luxemb. Nachtr. 1973

II, 1901, p. 178. *Phomatospora therophila* Feltg. Vorst. Pilz. Lux. Nachtr. I, p. 208, non (Desm.) Sacc. — Peritheciis vulgo seriatis, subsparsis, maculas ustulatas generantibus, sublenticularibus, atrobrunneis, ostiolo punctiformi erumpentibus; ascis tereti-clavulatis, longiuscule stipitatis, 45-57 \times 4,5-5,5; paraphysibus copiosis, filiformibus, septatis; sporidiis 3,5-5,5 \times 1,8-2,6, ovoideis, continuis, hyalinis, intus æqualiter farctis.

Hab. in calamis siccis *Luzulæ albidæ*, Luxemburg. — Proxime affinis *Ph. paraguayæ* Speg.

30. *Physalospora necans* Rehm in Hedw. 1901, p. (105). — Peri- 1974

theciis dispersis, primitus immersis dein emergentibus, globulosis, glabris, minutissime papillulatis, nigris, contextu parenchymatico fusco, 150 μ . diam.; ascis fusoides 60-80 \times 9, sessilibus, octosporis; sporidiis fusiformibus, rectis v. subcurvatis, haud acutatis, 1-cellularibus, interdum 1-2-guttulatis, hyalinis, 15-18 \times 3, distichis; paraphysibus filiformibus 2 μ . diam.

Hab. ad rachidem *Lycopodii annotini* prope Eibsee Bavariæ (Doct. REHM).

Sporophysa Sacc. Species lichenicolæ *).

31. *Physalospora insularis* (Mass). Sacc. et D. Sacc. *Placidium* (Ver- 1975

rucaria) *insulare* Mass. Sert. lichen. in Lotos 1856, p. 78. — Peritheciis minutis omnino immersis, atris, tandem protuberantibus thallumque breviter bullatum reddentibus; ascis clavatis, paraphysibus absoletis obvallatis; sporidiis octonis ovoideo-subrotundis, diaphanis, nubilosis, 9 \times 6.

*) De quæstione ascophytarum permultarum in Lichenibus parasiticarum, an funginæ v. lichenosæ considerandæ sint contributiones jam numerosas habemus cll. Lindsay, Arnold, Winter, Rehm, Zopf etc., sed multum restat ut opus absolvatur; multæ species a cll. Lindsay et Arnold enumeratæ ut fungi lichenicolæ et hic omissæ, denuo scrutandæ sunt. Ad species plurimas jam in Sylloge receptas, in hoc volumine plures aliæ adduntur et breviter describuntur, quarum elenchum cl. prof. Lindau benevole communicavit. Ad genera fungina propiora ad interim retulimus, sed non absque ambiguitatibus permultis.

Hab. in thallo *Aspiciliæ* calcareæ ad saxa calcarea in agro Veronensi Ital. bor. Maculas insulares efformat.

32. **Physalospora Xanthoriæ** (Wedd.) Sacc. et D. Sacc. *Sphæria Xanthoriæ* Wedd. Nouv. Rev. des Lich. Agde. 1873, p. 22. — Peritheciis immersis 300-400 μ . diam.; ascis filiformi-paraphysatis, 6-8-sporis; sporidiis ellipsoideis 10-12 \times 5-6, continuis, hyalinis.

Hab. in thallo *Xanthoriæ* parietinæ, Agde Galliæ.

33. **Physalospora Aspiciliæ** (Wain.) Zopf, Hedw. 1896, p. 317, *Verucaria Aspiciliæ* Wainio. Adjum. Lich. Lapp. II, p. 179 (1883). — Peritheciis semiimmersis, nigricantibus, 300 μ . diam., poro pertusis; ascis cylindraceo-clavatis, laxè tenuiter paraphysatis, octosporis, jodo cærulescentibus; sporidiis ellipsoideo-oblongis, 10-17 \times 5-7.

Hab. in thallo *Aspiciliæ* Myrini v. subadunantis in Karelia rossica.

TRABUTIA Sacc. et Roum. — Syll. I p. 449, IX p. 601, XI p. 293, XVI p. 463.

1. **Trabutia? Mauritæ** (Mart.) Sacc. *Sphæria* (Conferta) *Mauritiæ* Martius, Versuch eines Comment. in Werk. Maregrav und Piso. München (Akad. Wiss., 1853) p. 225. — Gregaria, longitudinaliter seriata, erumpens, atra; stromate elongato-lineari turgido inæquali, verruculoso, compagine spissa carbonacea; peritheciis sparsis, immersis, globosis, atris, tandem ore amplo hiantibus, ante aperitionem vertice levigato nitidiusculo insignibus; ascis tenuissimis, linearibus, longiuscule pedicellatis, apice obtusis; sporidiis globosis uniseriatis.

Hab. in foliis *Mauritiæ* flexuosæ, strias 5 cm. long. efficiens, Pará Brasilæ.

WALLROTHIELLA Sacc. — Syll. I p. 455, IX p. 605, XI p. 294, XIV p. 524, XVI p. 465.

1. **Wallrothiella Myrtilli** Feltgen Vorstud. z. Pilz. Fl. Luxemburg, Nachtr. III, 1903, p. 285. — Peritheciis sparis v. subpulvinatis, verticaliter ellipsoideis, vertice rotundatis vel acutatis, basi matrice insculptis et epidermide rupta cinctis, atro-brunneis, extus rugulosis, firmis, 300-500 μ . diam.; ascis cylindraceis, rectis, longiuscule stipitatis 95 \times 5-6, octosporis; sporidiis submonostichis oblongo-teretiusculis, utrinque rotundatis, rarius acutiusculis, rectis vel leniter curvatis, hyalinis, utrinque 1-guttulatis, 8.5-11 \times 1.5-1.8; paraphysibus filiformibus ascos paullo superantibus 1-1.5 μ . cr.

- Hab.* in ramulis corticatis *Vaccinii Myrtilli*, Luxemburg.
2. **Wallrothiella fraxinicola** Feltgen Vorstud. zur Pilz. Flora Luxemb. 1980 Nachtr. III, 1903, p. 286. — Peritheciis gregariis, superficialibus vel leviter adnatis, globoso-depressis, obtuse papillatis, rugulosis, carbonaceo-fragilibus, nigris 400-500 μ . diam.; ascis clavato-cylindraceis deorsum tenuatis, subsessilibus, parte spor. 27-35 \times 7-8, sex-octosporis; sporidiis mono-distichis, tereti-ellipsoideis, continuis, hyalinis, 4-guttulatis, 8-11 \times 2,5-3.
- Hab.* in cortice et ligno *Fraxini*, Luxemburg.
3. **Wallrothiella silvana** Sacc. et Cav. — Syll. XVI, p. 465. — var. 1981 *mejospora* Feltgen, Vorst. zur Pilz. Fl. Luxemb. Nachtr. III, 1903, pag. 284. — A typo præcipue differt hyphis basilaribus, ramosis, septatis, brunneis, perithecia cingentibus, sporidiis minoribus 8 \times 2,5-3, teretiusculis.
- Hab.* in ramis decorticatis *Fagi*, Luxemburg.
4. **Wallrothiella melanostigmoides** Feltgen, Vorstud. z. Pilz. Fl. Lu- 1982 xemb. Nachtr. III, 1903, p. 285. — Peritheciis gregariis, in matrice denigrata et setulis brunneis conspersa superficialibus vel basi adnatis, hyphis brunneis cinetis, globosis v. globoso-conicis, nigris, glabris 100-150 μ . diam., ostiolo conico, anguste pertuso præditis; ascis cylindro-fusoideis, apice subrotundis, deorsum longe tenuato-stipitatis, octosporis, 80-100 \times 8-10, filiformi-paraphysatis; sporidiis mono-distichis, ellipsoideis, obtusis, rectis, subinde inæquilateris, continuis, hyalinis, minute guttulatis, 16-19 \times 4-5.
- Hab.* in ramis decorticatis putridis *Quercus*, Luxemburg. — *Wallr. melanostigmæ* affinis.

TRICHOSPHERIA Fuck. — Syll. I p. 452, IX p. 602, XI p. 293, XIV 523, XVI p. 463.

1. **Trichosphæria dryadea** Rehm, Hedw. 1903, p. (292). — Perithe- 1983 ciis sparsis, superiori foliorum exsiccatorum pagina immersis, demum sessilibus, globulosis, vertice setis numerosis, rectis, acutatis, fuscis c. 100 μ . long. 5 μ . lat., vestitis, atris, membranaceis 150 μ . diam.; ascis clavatis octosporis 80 \times 20; paraphysibus nullis; sporidiis ovoideis 1-cellularibus, primitus gutta oleosa magna singula structis, dein granulis repletis, hyalinis, demum chlorinis 20-22 \times 10-11, distichis.

Hab. ad folia præeuntis anni pendula *Dryadis octopetalæ*, prope Hinterbärenbad Tirolæ (Doct. REHM).

2. **Trichosphæria incisa** Morgan, Journ. of Mycol. 1904, p. 161. — 1984

Peritheciis superficialibus, gregariis, ovoideis, setulis longis, rectis pallide brunneis, vestitis, 300-400 μ . diam.; ascis octosporis, paraphysatis, breve stipitatis, 55-65 \times 8-9; sporidiis globosis v. ovoideis, hyalinis, levibus, 8-9 \times 7-8.

Hab. in ligno vetusto Platani, Preston, Ohio, Amer. bor. — Setæ 100-150 μ . long. parce septatæ, fumosæ.

3. *Trichosphæria pulviscula* Feltgen, Vorstud. zur Pilz. Fl. Luxemb. 1985 Nachtr. III, 1903, p. 281. — Peritheciis gregariis vel hinc inde confertis, omnino superficialibus, globosis, minute conico-papillatis; hyphis brunneis, rigidulis, septatis 40 \times 5-6 vestitis, 150-200 μ . diam.; ascis cylindricis, stipitatis, octosporis 36-46 \times 2-8; sporidiis recte monostichis, obtuse cylindræis, continuis, biguttulatis, 4-5 \times 2,5.

Hab. in ligno putrescente Coniferarum, Luxemburg. — *Trich. fissurarum* proxime affinis.

4. *Trichosphæria tetraspora* Feltgen, Vorstud. zur Pilz. Fl. Luxemb. 1985 Nachtr. III, 1903, p. 281. — Peritheciis dense gregariis v. hinc inde confertis, superficialibus, hemisphæricis, nitide papillatis, hyphis myceliis, 30-100 \times 6-8, atro-brunneis breviter expansis conidiophoris basi cinctis; conidiis verruculosi, hyalinis, 20-27 \times 20; peritheciis 200-250 μ . lat.; ascis cylindræo-clavatis, stipitatis 68-70 \times 5,5-7, tetrasporis; sporidiis oblique monostichis, obtuse ellipsoideis hyalinis continuis, biguttulatis, 8 \times 2,8-5; paraphysibus filiformibus ascos paullo superantibus, hyalinis.

Hab. in ligno Quercus vel Fagi putrescenti, Luxemburg.

5. *Trichosphæria culmorum* Feltg. Vorstud. Pilz. Luxemb. Nachtr. I, 1901, p. 204. — Peritheciis gregariis vel dense confertis, omnino superficialibus 0,2-0,3 mm. diam., nigris, setulis atro-brunneis, rectis vel curvulis, obtusis, 52-180 \times 2,5-5, vestitis; ostiolo papillato; ascis cylindricis, breve stipitatis, 60-65 \times 4,5-5,5; sporidiis monostichis, elliptico-ovoides, vulgo inæquilateris, continuis, 4-guttulatis, 8,5-10 \times 3,5-5,5 ex hyalino dilutissime flavidis.

Hab. in culmis cerealium putrescentibus, Luxemburg. — Affinis *Trich. exosporioidi*, sed asci cylindrici et multo longiores.

COUTINIA d' Almeida et da Camara in Rivista agron. de Lisboa, 1903, n. 12, p. 293, tab. XIV (Etym. a cl. botanico PEREIRA COUTINHO Floræ lusit. cultore). — Perithecia carbonacea, plerumque conglomerata, haud stromatica, ostiolo pertuso, subtectæ. Asci stipitati,

paraphysati, octospori. Sporidia continua, plus minus ellipsoidea, hyalina. — Vix v. non differt a gen. *Botryosphæria*!

1. *Coutinia Agaves* d'Alm. et da Cam. l. c. p. 393, t. XIV, f. 4-6. 1988

— Peritheciis amphigenis, gregariis v. rarissime solitariis, primo tectis, subinde epidermide rupta, ostiolo denudato, subglobosis, aterrimis, 320 μ . diam.; ascis 8-sporis, clavatis, longe stipitatis, paraphysatis, 160-180 \times 40-50; sporidiis distichis, subellipsoideis, unilateraliter gibbosis, plasmato granuloso-farctis, hyalinis, 40-48 \times 15-18.

Hab. ad folia *Agaves* americanæ, Bemfica, Lisboa, martio 1903, socio *Coniothyrio concentrico* var. *Agaves* Sacc. — Verisimillime *Botryosphæria Bérengerianæ* peraffinis.

BOTRYOSPHÆRIA Ces. et De Not. — Syll. I p. 456, IX p. 605, XI p. 295, XIV p. 524, XVI p. 467.

1. *Botryosphæria majuscula* Sacc. in Atti Congr. bot. di Palermo 1902. 1989

p. 49. — Stromatibus seu acervulis laxè gregariis innato-erumpentibus, peridermio cinctis, nigris, 1,5-2 mm. diam. convexo-discoideis; peritheciis globoso-depressis, majusculis, in quoque acervulo 8-12 congregatis, 300-500 μ . diam., extus tenuissime rugulosis opaco-nigris, papillatis, intus albis; contextu grosse celluloso, fuligineo; ascis elongato-clavatis, brevè stipitatis, apice rotundatis, 150-170 \times 16-26, sæpe gibbosis, bacillari-paraphysatis, 4-8-sporis; sporidiis oblongo-ellipsoideis, basi subinde acutioribus, 30-33 \times 14-15, nubilosis, hyalinis.

Hab. in ramis corticatis quercinis, Rigny s. A. Galliæ (FLAGOLET). — Peritheciis eumorphis, majusculis, sporidiis quoque majoribus ab affini *B. Bérengeriana* dignoscitur.

2. *Botryosphæria Hoffmanni* v. Höhn. Ann. Mycol. 1904, pag. 275. 1990

— Stromatibus erumpentibus, pulvinatis, nigris, peridermio fissò cinctis, levibus vel rugulosis, subrotundo-angulosis, 0,5-1,5 mm. diam.; peritheciis immersis, plerumque 4-5, globulosis v. compressis, subinde confluentibus, 300-350 μ . diam.; ascis crasse clavatis, 110 \times 28-32, typice octosporis, copiose paraphysatis; sporidiis elliptico-ovoideis, subinde oblongis v. subfusoides, utrinque obtusulis, 28-42 \times 12-16, hyalinis, strato mucoso cinctis.

Hab. in ramis Fagi silvaticæ, in Wiener Wald pr. Vindobonam Austriæ, sociis *Asterosporio Hoffmanni* et *Fusicocco macrosporo*, quæ, teste cl. Höhnelt, macro- et micropycnidia *Botryosphæriæ* sistunt. — Quod *Fusicoccum* huc pertineat, non excludo;

sed quoad dissimillimum *Asterosporium*, nisi experimenta hoc confirment, omnino improbabile mihi videtur.

3. **Botryosphæria Pruni** Mo. Alp. Fungus diseases, Melbourne 1902, 1991 pag. 119, fig. 217-220. — Stromatibus dense gregaris, e ligno erumpentibus, nigris 1 mm. diam.; peritheciis 4-5-congestis, globosis vel depresso-globosis, papillatis vel rostratis, subcoriaceis 300-400 μ . diam.; ascis clavatis v. oblongo-cylindræis, paraphysatis, octosporis, 40-80 \times 13-16; paraphysibus hyalinis, septatis, filiformibus subæquilongis; sporidiis monostichis v. distichis, hyalinis, oblongo-ellipticis vel lanceolato-ellipticis, granulosis, 20-24 \times 8-9.

Hab. in ramulis emortuis Pruni Armeniacæ, Armadale pr. Melbourne Australiæ.

4. **Botryosphæria muriculata** Ell. et Ev. in Journ. of Mycol. 1902, 1992 p. 68. — Stromatibus corticalibus subcutaneis, epidermide muriculato-fissa cinctis, nigricantibus, hysteriiformibus; peritheciis 2-6 in quoque stromate 250-300 μ . diam., ostioli papillatis præditis, erumpentibus; ascis clavato-cylindræis, breve stipitatis, paraphysatis, p. sp. 75-80 \times 18-20; sporidiis distichis, oblongo-ellipticis, subinæquilateralibus, utrinque rotundatis v. obtusulis, 20-25 \times 10-12.

Hab. in caulibus Smilacis, Alabama Amer. bor.

5. **Botryosphæria hysterioides** Ell. et Ev. in Journ. of Mycol. 1902, 1993 vol. 8, pag. 18. — Maculis oblongo-ellipticis, dein confluentibus 10 cm. et ultra, initio rubro-brunneis, dein griseo-albidis, rufo marginatis; peritheciis globosis 200-300 μ . diam., 2-4 aggregatis, in stromate hysterioides 0,5-0,8 mm. longo insidentibus, velatis, dein ostiolo papilliformi, obsoleto erumpentibus; ascis late clavato-oblongis 75-100 \times 25-30, breve stipitatis, paraphysibus obscurioribus obvallatis; sporidiis oblongis, utrinque acutis, hyalinis, fere luteolis 25-30 \times 8-12, vacuolatis.

Hab. in foliis Hesperaloes Dayii, Peyotes Mexico (W. TRELEASE).

RINIA Penz. et Sacc. Malpighia 1902 (Etym. a cl. medico et botanico veneto Benedicto Rinio, qui annis 1415-1430 circ. codicem *De simplicibus* conscripsit, plantarum iconibus, suo tempore eximiis, ornatum, in bibliotheca Marciana Venetiis nunc servatum). — Perithecia biophila, phyllogena, membranacea, nigricantia, fasciis mycelicis, innato-prominulis, repentibus, anastomotico-reticulatis semiimmersa, globulosa, ostiolo albido, appendicibus verruciformibus

majusculis, nigris, carbonac-is stellatim cincto. Asci oblongo-fusoidei, paraphysati, octospori. Sporidia ellipsoidea, continua, hyalina. Genus ostiolo maximo stellato prædistinctum, qua nota faciem sumit *Delpinoellæ*, etsi fabricâ omnino diversum et nulli nec affine nec parallelum.

1. *Rinia spectabilis* Penz. et Sacc. l. c. et Leon. fung. Jav. t. III, 1994 f. 3. — Amphigena, dense gregaria; peritheciis intus pallidis, globulosis, matrici semiimmersis, 240-260 μ . diam., ostiolo minuto cristis seu verrucis prominentibus, carbonaceo-fragilibus, nigris, subquinis, rugosis, circulum radiatum 450-500 μ . diam. formantibus coronato; ascis obtuse fusoideis, brevissime stipitatis 70-75 \times 18-20, copiose filiformi-paraphysatis, octosporis; sporidiis irregulariter distichis, ellipsoideis 10 \times 6, hyalinis, levibus.

Hab. in foliis omnino viventibus subcoriaceis plantæ indeterminatæ, Tjibodas, Java. — Fasciæ mycelicæ folio innato-prominulæ, fulvo-fuscae, crassæ, 0,3 mm. cr., natura granulosa dubia nec filamentosæ.

CERATOSTOMELLA Sacc. — Syll. I p. 408, IX p. 573, XI p. 289, XIV p. 515

1. *Ceratostomella pilifera* (Fr.) Wint. Kryptogamenfl. II, pag. 252, *Ceratostoma piliferum* (Fr.) Fuck. — Syll. II, p. 219. — Conferenda pulcherrima illustratio H. v. Schrenk in Bull. U. S. Dep. of Agricult. 1903, p. 17, tab. VII. Nascitur quoque in truncis Pini ponderosæ, in America bor., cujus lignum inde cyanescit, unde nomen vulgare «Blue». Asci piriformes subsessiles; sporidia oblonga, curvula, hyalina, conglobata, 5,5 \times 2,5.

CRYPTOSPORELLA Sacc. — Syll. I p. 466, IX p. 609, XIV p. 525, XVI p. 468.

1. *Cryptosporella eupatoriicola* Rehm, Hedw. XLIV, p. 6. — Stro- 1995 matibus ramulum hypertrophicum ambientibus, arcte congregatis, hemisphæricis, peridermio demum extus nigritulo tectis, cortici innatis, linea nigra intus non circumscriptis; peritheciis in stromate c. 5 innatis, irregulariter conglomeratis, globulosis, collis in discum suborbicularem convergentibus, papillis nigris, hemisphæricis, demum scabriusculis, poro vix perspicue pertusis prominentibus; ascis fusiformibus octosporis 50 \times 15; sporidiis oblongis, utrinque rotundatis, subhyalinis, 1-cellularibus, strato mucoso obductis, 12-15 \times 5-6; paraphysibus nullis.

Hab. ad ramulos Eupatorii bupleurifolii, Tubarao Brasiliæ.

2. **Cryptosporella Macrozamiæ** P. Henn. in Hedw. 1902, p. (64). — 1996

Stromatibus petioli- v. follicolis, primo epidermide fusca v. cinerea tectis, oblongis, punctoideis vel striiformibus, gregariis, sæpe confluentibus, dein epidermide longitudinaliter rimosis; peritheciis paucis vel pluribus, carbonaceis, atris, hemisphaericis v. subglobosis, ostiolatis; ascis clavatis, apice rotundato-obtusis, 100-200 \approx 14-22, octosporis; paraphysibus copiosis filiformibus, septatis, hyalinis, apice paullo incrassatis, obtusis, 3-4 μ . crassis; sporidiis oblongo-ellipsoideis vel ovoideis, interdum subglobosis, intus granulatis, hyalinis, continuis, 15-22 \approx 10-15.

Hab. in petiolis foliisque Macrozamiæ Fraseri, Darling Range Australiæ occid. — Ob paraphyses copiosissimas, perfecte evolutas, species a typo desciscit et hinc ab auctore in subgen. nov. *Cryptosporina* P. Henn. erigitur

Sect. 3. Phæosporæ.

MÜLLERELLA Hepp. — Syll. IX p. 495.

1. **Müllerella haplotella** (Nyl.) Arn. ap. Zopf, Hedw. 1896, p. 314, 1997
Endococcus haplotellus Nyl. Fl. 1867, pag. 180. — Peritheciis nigris, minutis, 100 μ . diam. prominulis; ascis polysporis, jodo rubentibus; sporidiis 1-cellularibus, ellipsoideis, atris, 4-7 \approx 2,5-3: paraphysibus nullis.

Hab. in thallo Arthoniæ astroideæ in Saellandia occid. (BRANTH).

2. **Müllerella thallophila** Arn. Fl. 1888, p. 14, Zopf. in N. Act. Leop. 1998
Carol. t. LXX, pag. 139 c. ic. — Peritheciis minutissimis, atris, immersis, apice applanato pertuso prominentibus; ascis clavatis 24-44-sporis; paraphysibus ascos longe superantibus; sporidiis 1-cellularibus, 7-12,5 \approx 4,2-5,3, brunneis.

Hab. in thallo Aspiciliæ cæcio-cinereæ in Paneveggio Trentino.

3. **Müllerella haplospora** (Th. Fr. et Almq.) Arnold, Flora 1874, 1999
p. 155, *Endococcus* Th. Fr. et Almq. Bot. Not. 1867, p. 109. — Peritheciis globosis, immersis, seminudis, atris, diam. 250-300 μ .; paraphysibus sat validis, gelatinoso-conglutinatis; ascis inflato-clavatis, polysporis; sporidiis numerosis, ellipsoideis, simplicibus,

nigricantibus, 8-10 \approx 4-6, gelatina hymen. jodo primo cærulescente, dein mox vinose rubente.

Hab. in thallo *Aspiciliæ* cinereæ prope Funnesdalen (Herjedalen) Sueciæ (ALMQUIST).

4. *Müllerella hospitans* Stitzenberg, Fries Th. in Flora 1865, p. 488, 2000
Zopf, Hedw. 1896, p. 329. — Ascis polysporis; sporidiis 1-cellularibus, brunneis . . .

Hab. in apotheciis *Lecaniæ* fuscellæ, Lidköping Sueciæ (F. GRAWE).

5. *Müllerella opegraphicola* Zopf, Hedw. 1896, p. 342 (sec. Linds. 2001
Observ. p. 549 et 555, tab. XXIV, fig. 26). — Peritheciis nigris; ascis piriformibus, polysporis; sporidiis 1-cellularibus pallide brunneis; paraphysibus nullis.

Hab. in thallo *Opegraphæ* atræ in Helvetia.

6. *Müllerella atricola* (Linds.) Sacc. et D. Sacc. *Microthelia atricola* 2002
Linds. Obs. p. 542, t. XXIV, fig. 7. — Peritheciis verrucarioides, minutis, distinctis, nigris, conico-depressis, subinde irregularibus, subinnatis, poro latiusculo apertis; ascis 50 \approx 15-16; sporidiis in quoque asco numerosissimis, sphaeroideis, atro-brunneis, 2-2,5 μ . diam.

Hab. in thallo *Lecanoræ* atræ in Britannia.

ANTHOSTOMELLA Sacc. — Syll. I p. 278, IX p. 505, XI p. 281, XIV p. 501, XVI p. 439.

1. *Anthostomella melanoderma* Rehm in Oest. Bot. Zeitschr. 1904, 2003
p. 82. — Maculis cauliculis plus minusve ambientibus, longitudinaliter 1-3 cm. strati externi superficiem fusco-nigricantibus; peritheciis sparsis, interdum seriatis, primitus immersis, dein emergentibus sessilibusque, globulosis, brevissime rostratis, nigris 120-150 μ . diam.; ascis cylindraceis, apice rotundatis, 40-45 \approx 7-8, octosporis, jodi ope poro interne cæruleo tincto; sporidiis ellipsoideis, interdum curvulatis, 1-cellularibus, guttulis oleosis, interdum gutta unica majore, repletis, fuscidulis 9-10 \approx 4-4,5, monostichis; paraphysibus ramosis, septatis, 3 μ . cr.

Hab. in caulibus putrescentibus *Umbelliferæ* sp. (?), in valle infra Monasterium Andechs Baviaræ sup.

2. *Anthostomella Coffeæ* Delacr. Bull. Soc. Mycol. 1904, pag. 145, 2004
tab. 9, fig. B, 1-3. — Peritheciis nigris, sparsis, primo immersis, dein superficialibus, ostiolo non prominente; contextu tenuiter parenchymatico; ascis late clavatis, brevissime pedicellatis, 50-57 μ

15-17; paraphysibus tenuibus, granulosis, asco paullo longioribus, sporidiis subdistichis, continuis, dilute viridi-olivaceis, ovoideis vel subpiriformibus vel uno latere applanatis, crasse bi-guttulatis, 12, 5-13,5 \times 6-7, strato gelatinoso circumdatis.

Hab. in ramis floriferis *Coffeæ arabicæ*, verisimiliter parasitans, Mexico (ERRERA).

3. *Anthostomella thyridioides* Ell. et Ev. in Journ. of Mycol. 1903, 2005 p. 167. — Peritheciis gregariis vel 1-2 congestis, globosis, immersis, sub cuticula nigrificata tectis, ostiolis papillatis donatis; ascis clavato-cylindraceis, 70-75 \times 10-12, paraphysatis; sporidiis oblongo-cylindraceis, continuis, brunneis, 15-22 \times 4-6.

Hab. in ramis decorticatis emortuis *Populi deltoidis*, Rooks Co., Kansas Amer bor. — Habitus *Thyridii*.

4. *Anthostomella pedemontana* Ferr. et Sacc. in Atti Congr. bot. di 2006 Palermo 1902, p. 50. — Peritheciis laxè gregariis, folio immersis epidermideque diu tectis, subglobosis, membranaceis, atris, 300-350 μ . diam., subinde longitudinaliter paullulum compressis, ostiolo brevissime papillato; ascis e fundo peritheciï oriundis, cylindraceo-clavatis breviter crasseque stipitatis, apice rotundatis, 100-110 \times 9, 5-10, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis, breve fusoideis utrinque obtusulis, leviter inæquilateris, 14-18 \times 6,5-7, continuis, intense fuligineis.

Hab. in foliis siccis, dejectis *Pini silvestris* pr. Crescentino Italiæ bor. — Specie prædistincta.

Anthostomaria Sacc. Species lichenicolæ.

5. *Anthostomella apogyra* (Nyl.) Sacc. et D. Sacc. *Melanotheca apo-* 2007
gyra Nyl. Flora 1887, pag. 132. — Peritheciis nigris, innatis, confluentibus, 100-150 μ . diam.; sporidiis octonis, oblongo-ovoideis, 16-18 \times 5-7, fuscis; paraphysibus mediocribus.

Hab. in *Gyrophoræ polyphyllæ* apotheciis, quæ deformat, in Caucaso (ЛОЖКА).

ROSELLINIA De Not. — Syll. I p. 252, IX p. 495, XI p. 280, XIV p. 494, XVI p. 435.

1. *Rosellinia necatrix* (R. Hart.) Berl. Rapp. fra Dematoph. e Ro- 2008
sellinia in Riv. Pat. veg. I, 1892, pag. 5 et p. 33, cum tabulis, Prill. Malad. pl. agric. II, p. 133 cum ic. et in Bull. Soc. mycol. Fr. 1904, p. 34, pl. III-IV, *Dematophora necatrix* R. Hart. Un-

ters. aus forstbot. Inst. III, 1883, p. 95, tab. VI-VII, Viala, Monogr. du pourridié, Paris 1891. — Peritheciis hinc inde gregariis subinde confertis, globosis, carbonaceis, brunneo-nigris, apice obtusis, basi brevissime stipitatis, ostiolo parum manifesto donatis, 2 mm. diam., fasciculis hypharum conidiophorarum divergentibus, obvallatis; hyphis (*Graphium* sistentibus) fasciculatis septatis, brunneis, sursum ramoso-divaricatis conidiaque ellipsoidea ovoidea 2-3 μ . diam. gerentibus; ascis filiformi-cylindræis, longiuscule pedicellatis, apice rotundatis et obturaculo jodo cærulescente præditis, 280-300 \times 30, octosporis, paraphysibus filiformibus copiosissimis obvallatis; sporidiis monostichis, fusoideis inæquilateris, utrinque acutis 40 \times 7, brunneis.

Hab. in partibus subterraneis *Vitis*, *Quercus*, *Aceris*, *Fici*, *Mori*, *Persicæ* nec non *Fabæ*, *Pæoniæ* *Hyacinthi* etc. in Germania, Gallia, Italia. — Perithecia ex mycelio floccoso albo demum fuscescente intra et extra corticem serpente oriuntur. Subinde pycnidia adsunt (*Diplodia*) subglobosa 250-500 μ . diam.; sporulis 25 \times 7,5, typice bilocularibus, brunneis. Morbus gravis, quo plantæ vexantur, vulgo ital. *marciume* audit.

2. *Rosellinia paraguayensis* Starb. in Arkiv för Botan. 1804, Band 2, 2009 pag. 15, fig. 32-35. — Subiculo pannoso-crustaceo late ambiente, setoso, nigro, pilis fasciculatis 3-4 μ . cr., usque 1 mm. alto; peritheciis gregariis interdum subconfertis, subiculo immersis, dein erumpentibus, late conicis, tomento subiculi vestitis, apicem versus levibus opace nigris, papillatis, 1-2 mm. diam.; ascis anguste cylindræis, sursum incrassatis, longe pedicellatis, p. sporif. 200-225 \times 8-9; sporidiis octonis dense imbricatis v. irregulariter monostichis, anguste fusoideis, subcurvulis, vulgo utrinque obtusiuscule tenuatis, mucro angustissimo obvolutis, continuis, 30-38 \times 7-7,5, ex hyalino demum fuscis; paraphysibus filiformibus, guttulis, ramosis, ascos superantibus.

Hab. ad truncos dejectos putres, San Tomas Paraguay. — *R. Desmazierii* affinis.

3. *Rosellinia Euterpes* Rhem, Hedw. XLIV (1905). — Peritheciis in 2010 mycelio albo, late effuso gregariis, subglobosis lata basi sessilibus 1-1,5 mm. lat. et alt., glabris, atris, subnitentibus, apice minutissime papillulatis, carbonaceis, fragilibus. Hymenium deest.

Hab. ad Euterpen, Blumenau Brasilæ (E. ULE). — Videtur affinis, licet diversa, *R. albo-fultæ*, *R. pictæ* et *R. griseo-cinctæ*, tamen ignota fructificatione, omnino dubia.

4. *Rosellinia madeirensis* P. Henn. Fungi Amaz. II, p. 242. — Peri- 2011
 ritheciis gregariis, superficialibus, subhemisphæricis v. subglobosis,
 atro-carbonaceis, obtuse ostiolatis, rugulosis, 0,6-0,8 mm. diam.,
 basi hyphis fuscis repentibus, septatis ca. $3-3\frac{1}{2}$ μ . circumdatis;
 ascis oblonge cylindræis, 8-sporis, plerumque evanescentibus;
 sporidiis oblique monostichis vel subdistichis, oblonge subnavicu-
 laribus, utrinque obtusis, $16-25 \times 8-10$, atro-castaneis.

Hab. in ramis emortuis, Rio Madeira, Marmellos Brasilæ. —

A *Rosellinia aquila* præcipue sporidiis crassioribus differt.

5. *Rosellinia echinata* Massee in Kew Bull. 1901, p. 155. — Peri- 2012
 theciis majusculis, 1-1,5 mm. diam., densissime aggregatis, glo-
 boso-depressis, superne convexo-applanatis, centro papillatis, atris,
 fragilibus, echinatis; ascis cylindræis, apice truncatis, incrassatis,
 octosporis; sporidiis oblique monostichis, fusiformi-navicularibus,
 utrinque acutissimis, opace brunneis, 1-2-guttulatis, glabris $90-100 \times 12$;
 paraphysibus, filiformibus, subinde ramosis $2,5 \mu$. crassis.

Hab. in radicibus Fici dubiæ in horto botanico Singapore, Malacca. — Valde damnosa.

6. *Rosellinia cæspitosa* Starb. in Arkiv för Botan. 1904, Band. 2, 2013
 p. 15, fig. 29-31. — Peritheciis densissime aggregatis, confluen-
 tibus v. superne liberis, stromate basilari conjunctis, cylindræis,
 apice rotundato-truncatis, fusco-purpureis, deinde nigris nitidis,
 non ostiolatis sed vertice operculatim dehiscentibus, 2-5 mm. alt.,
 1-2 mm. lat., contextu dense carbonaceo; ascis non visis; sporidiis
 oblongato-ellipsoideis v. interdum subsphæroideis, navicularibus
 olivaceo-fuscis, interdum apice guttulatis, $7-14 \times 6-9$ v. $6-7 \mu$. diam.

Hab. ad ligna pr. Coxipó Matto Grosso Brasilæ. — Perithe-
 ciis magnis astomis vix hujus generis. Ofr. *Henningsinia*, a qua
Hypox. (Camillea) turbinatum et forte *Pyrenomyxa* Morg. non
 differre videntur.

7. *Rosellinia Castaneæ* Oud. in Ned. Kruidk. Arch. 3 Ser., II, 4, 2014
 p. 872, 1903. — Peritheciis amphigenis, sparsis, $250-300 \mu$. diam.,
 globoso-depressis, in parenchymate immersis, superne prominen-
 tibus, nigro-carbonaceis, glabris; ascis cylindræis, basi attenuatis,
 octosporis; sporidiis monostichis, oblongis, subinequilateralibus
 $11 \times 3,5$, brunneolis, guttula mediana, distincta præditis, superne
 rotundatis, inferne truncatis; paraphysibus linearibus, continuis,
 hyalinis, asco brevioribus.

Hab. in foliis Castaneæ vesceæ, Bussum Hollandiæ (C. J. Koning).

8. **Rosellinia Calami** P. Henn. in Hedw. 1903, p. (79). — Peritheciis superficialibus, plerumque aggregatis confluentibusque ovoideis vel subglobosis, atro-carbonaceis, primo ferrugineo-pruinosis, dein levibus, atris, subnitentibus, subconico-ostiolatis, 0,3 mm. diam.; ascis cylindraceo-clavatis, apice obtusis, octosporis, 80-100 μ . long., p. spor. 70-80 \approx 4-4,5; paraphysibus filiformibus, hyalinis, ca. 1-1,5 μ .; sporidiis monostichis oblonge ellipsoideis, inæquilateralibus, utrinque obtusis, 2-guttulatis, brunneis v. atris, 7-9 \approx 3,5.
Hab. in caudicibus Calami spec., N. Queensland Australiæ (PRITZEL).
9. **Rosellinia Bigeloviae** Ell. et Ev. — Syll. XIV, pag. 494. — f. 2016
Amorphæ Ell. et Ev. in Journ. of Mycol. 1902, v. 8, p. 16. — Peritheciis dense stipatis v. subconfluentibus, ovato-globosis 250-350 μ . diam.; ostiolo papilliformi v. conico; sporidiis 8-10 \approx 5-5,5, distincte compressis 3-3,5 μ . cr. — f. **Negundinis** Ell. et Ev. l. c.: sporidiis 8-10 \approx 4-5, 3 μ . cr.
Hab. in caulibus emortuis *Amorphæ* fruticosæ et *Negundinis* aceroidis, Rooks Co., Kansas Amer. bor. (BARTHOLOMEW).
10. **Rosellinia biguttulata** Starb. in Arkiv. för Botan. 1904, Band. 2, p. 14. — Peritheciis dense aggregatis, stromate basilari fere conjunctis v. interdum omnino confluentibus, crustam longe lateque effusam efformantibus, atratis, rugosis, sphæroideis, vertice glabro fere truncato, distincte papillulato, circ. 500 μ . diam.; ascis jam resorptis; sporidiis ellipsoideis, biguttulatis, 6,5-9 \approx 3,5-5.
Hab. ad truncum putrem, colon. Sjuhy Rio grande do Sul Brasilæ.
11. **Rosellinia coffeicola** Pat. Champ. de la Guadeloupe, ser. III, in 2018 Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Peritheciis carbonaceis, nigris, globulosis, plus minusve compressis, congestis, 700-850 μ . diam., superficialibus, tuberculatis; ostiolo papilliformi, lucenti, centrali, depresso; sporidiis brunneis, ovoideis sæpe inæquilateralibus, 12 \approx 5.
Hab. in ligno denudato putri *Coffeæ arabicæ*, Guadalupa.
12. **Rosellinia millegrana** (Schw.) Sacc. — Syll. I, p. 265. — var. 2019 **minuta** Feltg. Vorst. z. Pilz. Fl. Luxemb. Nachtr. III, 1903, p. 287. — A typo, quocum congruit habitu, differre videtur sporidiis multo minoribus, diu hyalinis, demum brunneis, ascis quoque minoribus.
Hab. in ramis decorticatis Alni vel Salicis? Luxemburg.
13. **Rosellinia subcompressa** Ell. et Ev. — Syll. XIV, p. 496. — var. **denigrata** Feltg. Vorstud. z. Pilz. Fl. Luxemb. Nachtr. III,

1903, p. 287. — A typo differt matrice distincte denigrata; peritheciis erumpentibus, 300-600 μ . diam.; ascis 60-80 \times 8-9; sporidiis atro-brunneis 8-9 \times 5-6, e latere 3-4 μ . cr.

Hab. in ramis decorticatis Sarothamni scoparii, Luxemburg.

14. *Rosellinia Mölleriana* P. Henn. Fungi blumenavienses II, in Hedw. 2020
1902, p. 13. — Peritheciis carbonaceis, superficialibus, caespitose confluentibus, subglobosis, atro-brunneis, ferrugineo-pruinosis vel subfurfuraceis, vertice depressis umbilicatis, conico-papillatis, dein perforatis 0,6-0,8 mm. diam.; ascis cylindraceis, obtusis, octosporis, 50-60 \times 4-5; paraphysibus copiosis, hyphoideis, hyalinis ca. 1 μ .; sporidiis monostichis, ellipsoideo-allantoideis, utrinque obtusis, fusco-castaneis, 6-7 \times 3,5.

Hab. in ligno putri, St. Catharina Brasilæ austr.

15. *Rosellinia hypoxylodes* (P. Henn.) Sacc. et D. Sacc. *Amphisphaerella hypoxylodes* P. Henn. Fungi blumenavienses II, in Hedw. 2021
1902, pag. 13. — Peritheciis superficialibus, sparsis, carbonaceis, conico-hemisphaericis, atris, pulverulentis ca. 1-1,5 mm. diam., ostiolo conico-obtusis; ascis clavatis, apice rotundato-obtusis, p. spor. 65-70 \times 10-13, stipite attenuato 30-50 μ . longo, octosporis; paraphysibus filiformibus 2-3 μ . cr., septatis; sporidiis ellipsoideis vel late fusoides, oblique monostichis, utrinque obtusis v. subacutiusculis, 1-guttulatis, atris, 14-18 \times 9-11.

Hab. in lignis, St. Catharina Brasilæ austr.

16. *Rosellinia Hippophaës* Rehm, Cester. Bot. Zeitschr. 1903, p. 9. — 2022
Peritheciis sparsis primitus immersis, dein per epidermidem lacertam emergentibus et sessilibus, globulosis, 300 μ . diam. subcarbonaceis, atris, papillula conoidea brevissima glabra; ascis evanidis; sporidiis oblongis, utrinque rotundatis subfuscis, 1-cellularibus 12-14 \times 7.

Hab. ad folium putridum Hippophaës rhamnoidis juxta torrentem in valle Kaiserthal Tiroliae. — Affinis *Ros. limoni-sporæ* et *Ros. macræ*. — E sect. *Amphisphaerella*.

17. *Rosellinia sordaria* (Fr.) Rehm. — Syll. I, p. 270, IX, p. 501. 2023
var. *microtricha* Feltgen, Vorstud. z. Pilz. Fl. Luxemb. Nachtr. III, 1903, p. 288. — A typo differt ascis majoribus, 70-80 \times 7-8; sporidiis 1-3-guttatis, tandem brunneis 7-10 \times 3-5,5 setisque totum perithecium vestientibus, acutis, brevibus.

Hab. in ramis decorticatis Fagi, Luxemburg.

18. *Rosellinia Queenslandiæ* (P. Henn.) Sacc. et D. Sacc. *Coniochaeta* 2024

Queenslandice P. Henn. Fungi Austral. in Hedw. 1903, p. (80) Peritheciis superficialibus, sparsis v. aggregatis, carbonaceis, atris, ovoideis, vertice papillatis v. concavis, basi mycelio fusco ramoso circumdatis, ca 300 μ . diam. dense setigeris, setis atris 50-200 \times 10-15; ascis cylindræis, p. spor. ca. 50 \times 4; sporidiis monostichis, oblongo-ellipsoideis, utrinque obtusis, fusco-atris 6-8 \times 3,5-4.

Hab. in ligno sicco pr. fl. Barron, N. Queensland Australiæ.

19. **Rosellinia occultata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 225

1901, p. 208. — Peritheciis dense et late cæspitulosis, ligno insertis et peridermio fisso relaxato cinctis, ovoideo-globosis, minute subinde longiuscule papillatis, opace nigris, pulveraceo-asperulis, setulis sparsis, nigris 13-26 \times 2-3,5 vestitis; ascis cylindricis, deorsum stipitato-tenuatis, apice obtusis, incrassatulis, octosporis 78-91 \times 5,5-6; sporidiis recte monostichis, cylindræo-ellipsoideis, obtusis, brunneis, vulgo biguttatis, 7-9 \times 4,5-5; paraphysibus filiformibus.

Hab. in ramis siccis, corticatis Quercus, Luxemburg. — Accedit ad *Ros. belgicam*.

20. **Rosellinia brassicicola** Feltgen, Vorstud. z. Pilz. Fl. Luxemb.

Nachtr. III, 1903, p. 288. — Peritheciis gregariis, rarius sparsis, 2026 liberis vel basi adnatis, globosis, papillatis 0,5 mm. diam., carbonaceo-coriaceis, fragilibus; ostiolo conoideo vel breve cylindræo, nitido præditis; setis nigris, rigidis, acutis, rectis vel flexuosis 50-80 \times 5-6, dense vestitis; ascis cylindricis breve stipitatis, 125-145 \times 11-15, octosporis, paraphysatis; sporidiis monostichis, ellipsoideis, continuis, atro-brunneis, 13-16 \times 9,5-13,5.

Hab. in caulibus putridis Brassicæ, Luxemburg. — Mycelium atrum circa perithecia serp. *Rosellinice horridæ* affinis.

CHÆTOMIUM Kunze. — Syll. I p. 220, IX p. 484, XI p. 279, XIV p. 490, XVI p. 428.

1. **Chætomium arachnoides** Mass. et Salm. Coproph. fungi II, p. 71, fig. 97-103. — Peritheciis parvulis, globosis, subumbonatis, sparsis v. gregariis, nigris, contextu parenchymatico e cellulis polygonis circ. 8 μ . latis composito, in parte superiore pilis fuscis longissimis flexuosis valde divergentibus, simplicibus, gracilibus 4-5 μ . cr., levibus, septatis apice plus minus uncinatis, undique vestitis; ascis clavatis cr. 36 \times 12 citissime diffluentibus; sporidiis e fronte late ellipsoideis vel subglobosis, utrinque acutatis, leniter compressis 7-9 \times 5-6, fulvidis. 2027

Hab. in fimo ovino et in charta putrescente, Kew Britannia.

2. *Chaetomium simile* Mass. et Salm. Coproph. fungi II, p. 71, fig. 8-9. 2028

— Peritheciis gregariis 500-750 μ . alt., subglobosis, undique olivaceo-pilosis, pilis superioribus dense confertis, intricatis, crispis, fuscis, pluries irregulariter spiraliter contortis, apice uncinatis, plerumque non septatis, levibus; ascis cylindraceis, breviter stipitatis $80 \approx 9-10$, octosporis; sporidiis monostichis, late ellipticis v. subglobosis, polo uno minute apiculatis, altero plus minusve rotundatis $8-10 \approx 7,5$ leniter compressis, olivaceo-fuscis.

Hab. in fimo canino vetusto, Kew Britannie.

SORDARIA Ces. et De Not. — Syll. I p. 230, IX p. 487, XIV p. 492, XVI p. 430.

1. *Sordaria longicaudata* (Griff.) Sacc. et D. Sacc. *Pleurage longicaudata* Griff. Mem. Torr. Bot. Cl. 1901, p. 81, tab. 8, fig. 9-11 — 2029
Peritheciis sparsis, immersis dein maturitate expositis, 600-900 \approx 450-600, membranaceis, maturitate nigris, globoso-piriformibus, brevi ostiolatis; ascis clavatis, rectis vel curvatis, breve stipitatis 280-300 \approx 32-42; paraphysibus late tubulari-ventricosis, irregularibus, ascis æquilongis; sporidiis ellipsoideis, utrinque rotundatis, sæpe superne acutatis 45-53 \approx 23-35, maturitate intense brunneis, longicaudatis.

Hab. in fimo vaccino, Rooks Co. Kansas (BARTHOLOMEW), Auburn, Alab. (EARLE), in fimo equino Austin, Texas (LONG).

2. *Sordaria arizonensis* (Griff.) Sacc. et D. Sacc. *Pleurage arizonensis* 2030
Griff. Amer. Sordar., Mem. Torr. Bot. Cl. 1901, p. 57, tab. VI, fig. 4-6 *). — Peritheciis sparsis v. congestis, initio immersis dein subemergentibus 400-600 μ . diam. membranaceis vel subcoriaceis, nigris v. opacis, globoso-piriformibus, superne albido-tomentosis, ostiolo brevi, papillato nigro, curvulo, setis longis brunneis donatis; ascis 4-sporis, cylindraceis, subcontractis, apice rotundatis, subpedicellatis, 38-45 \approx 240-325; paraphysibus variabilibus, filiformibus, septatis, asco multo longioribus; sporidiis monostichis, ellipsoideis utrinque subrotundatis 45-52 \approx 21-25 initio hyalinis dein intense brunneis, longissime utrinque appendiculatis.

Hab. in fimo pecorino et vaccino, Tucson, Ariz., Amer. bor.

3. *Sordaria Ellisiana* (Griff.) Sacc. et D. Sacc., *Pleurage Ellisiana* 2031
Griff. Amer. Sord., Mem. Torr. Bot. Cl. 1901, pag. 72, tab. V, fig. 1-3. — Peritheciis sparsis semiimmersis vel superficialibus,

*) Conferenda optima Monogr. de Sordariaceis amer. cl. GRIFFITHSII.

mycelio dense obvolutis 500 × 300, submembranaceis, piriformibus, septatis vestitis; ascis octosporis, clavatis, longe stipitatis 160-185 × 26-32; paraphysibus filiformibus, septatis, inferne subconstrictis; sporidiis distichis ovatis vel late ellipsoideis maturitate, intense brunneis 21-27 × 11-16, longiuscule appendiculatis.

Hab. in fimo vaccino, Englewood et Newfield N. J. Amer. bor. (ELLIS).

4. **Sordaria globosa** Mass. et Salm. Coproph. fungi I, p. 334, fig. 21. 2032

— Peritheciis subgregariis, primo subimmersis dein plus minus superficialibus, globosis circ. 750 μ. diam., glabris, olivaceis, ostiolo papilliformi atro, subcarnaceo; contextu parenchymatico e cellulis tenuibus composito; ascis numerosis cylindraceis, deorsum in stipitem longum attenuatis, octosporis, 300-350 × 35-50; sporidiis ellipticis 35-40 × 20-22, basi tantum appendicula hyalina cylindracea sæpe attenuata persistente recta vel curvula 25-30 μ. longa auctis.

Hab. in fimo Macropodis gigantei et Cervi Elaphi, Kew Britanniae.

5. **Sordaria tænioides** (Griff.) Sacc. et D. Sacc. *Pleurage tænioides* 2033

Griff. Mem. Torr. Bot. Cl. 1901, pag. 58. — Peritheciis sparsis, subimmersis erumpentibusque 500-750 μ. olivaceo-brunneis, coriaccellis, globoso-piriformibus, ostiolo longe cylindrico donatis, superne setulis septatis brunneis uniformiter vestitis; ascis 4-sporis, cylindraceis superne rotundatis, longe pedicellatis 290-360 × 37-45; paraphysibus filiformibus superne subincrassatis, septatis, asco æquilongis; sporidiis monostichis, ellipsoideo-ovalibus, utrinque subrotundatis initio hyalinis, dein olivaceis, intense brunneis 56-62 × 29-32, basi minute apiculatis, utrinque longissime appendiculatis.

Hab. in fimo equino et bovino, in Amer. bor.

6. **Sordaria kansensis** (Griff.) Sacc. et D. Sacc. *Pleurage kansensis* 2034

Griffiths Mem. Torr. Bot. Cl. 1901, p. 83, tab. VIII, fig. 6-8. — Peritheciis sparsis v. aggregatis, immersis v. superficialibus, superne pilis septatis olivaceo-brunneis, flexuosis, vestitis, 600-800 × 375-450, tenui-membranaceis, junioribus virescentibus, maturis vero nigris, ostiolo papillato cylindraceo, plerumque curvo; ascis octosporis cylindraceis apice rotundatis breve stipitatis 180-240 × 26-32; paraphysibus ventricosis, agglutinatis, ascos superantibus; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis 26-35 × 18-21, ex olivaceo tandem atro-brunneis, utrinque longe ap-

pendiculatis; appendicibus ex filamentis duobus longitudinaliter coalitis formatis.

Hab. in fimo bovino, equino, in Americæ bor. pluribus locis. — Appendices primariæ nullæ.

7. *Sordaria multicaudata* (Griff.) Sacc. et D. Sacc. *Pleurage multicaudata* 2035

Griffiths Mem. Torr. Bot. Cl. 1901, p. 85, tab. VI, fig. 7-9.

— Peritheciis sparsis semiimmersis 900 \times 600 subcoriaceis virescentibus tandem opace nigris, piriformibus v. globosis, pilis longis, rectis, atro-brunneis septatis, superne vestitis, ostiolo papilliformi v. cylindraceo, curvulo; ascis octosporis, clavatis, sursum attenuatis et rotundatis, breve stipitatis, 225-260 \times 42-58; paraphysibus latis ascos paullo superantibus; sporidiis distichis, ellipsoideo-oblongis, utrinque rotundatis 40-45 \times 20-25, ex olivaceo-flavido tandem opace brunneis, appendicibus primariis nullis, secundariis brevibus, filiformibus, sporidium totum obtegentibus, polaribus paullo longioribus.

Hab. in fimo bovino, Highmore et Biloxi Amer. bor. — Peritheciis inferius pilis longis, flexuosis, septatis vestita.

8. *Sordaria superior* (Griff.) Sacc. et D. Sacc. *Pleurage superior* Griff. 2036

Mem. Torr. Bot. Cl. 1901, p. 68, t. 19, fig. 14-16. — Peritheciis superficialibus, sparsis, membranaceis brunneis, piriformibus 450-600 μ . diam., ostiolo breve donatis setulis brevibus, septatis vestitis; ascis octosporis, clavatis, longe stipitatis 250-275 \times 30-40; paraphysibus pluriseptatisasco longioribus; sporidiis distichis, ellipsoideis 23-27 \times 12-14, intense brunneis v. olivaceis, longissime appendiculatis.

Hab. in fimo vaccino, Summit in Montana Amer. bor. (Griffiths et Lange).

9. *Sordaria anomala* (Griff.) Sacc. et D. Sacc. *Pleurage anomala* 2037

Griff. Mem. Torr. Bot. Cl. 1901, p. 56. — Peritheciis subimmersis v. superficialibus v. in mycelio griseo brunneo denso insidentibus, membranaceis, 300-350 μ . diam. nigris vel inferne intense brunneis, piriformibus, ostiolo papillato curvo nigro donatis; ascis 4-sporis, cylindraceis apice subrotundatis, filiformi-pedicellatis 165-190 \times 18-21; paraphysibusasco æquilongis, ventricosis; sporidiis monostichis, ellipticis vel subglobosis, superne rotundatis inferne truncatis 13-16 \times 18-21, intense brunneis; primaria appendicula sporidio æquilonga, cylindrica, curvula, secundaria varie longa.

Hab. in fimo vaccino, New York City Amer. bor.

10. *Sordaria erostrata* (Griff.) Sacc. et D. Sacc. *Pleurage erostrata* 2038
Griff. Mem. Torr. Bot. Cl. 1901, p. 71, tab. 4, f. 11-13. — Peritheciis sparsis omnino superficialibus 180-225 μ . diam. submembranaceis, maturitate nigris, setulis longis septatis, flexuosis, brunneis vestitis, sphaericis, erostratis; ascis octosporis, clavatis, breve stipitatis 48-54 \times 16-21; paraphysibus nullis; sporidiis distichis ellipsoideo-ovatis, initio hyalinis, dein olivaceis vel intense brunneis 11-13 \times 6,5-8, breve appendiculatis.
Hab. in fimo equino, Aberdeen S. D. in fimo vaccino, Tucson, Ariz., Rooks Co., Kansas, Amer. bor. (TYLER, BARTHOLOMEW, LONG etc.).
11. *Sordaria?* *hyalina* Griff. in Mem. Torr. Bot. Cl. 1901, p. 48. — 2039
Peritheciis sparsis, immersis, subglobosis, circ. 150 μ . diam., membranaceis, brunneis, levibus; ostiolo papillato v. nullo; ascis octosporis, superne rotundatis v. truncatis, apertis, deorsum attenuato-stipitatis 45-55 \times 5-6; paraphysibus non visis; sporidiis oblique monostichis, ellipticis, utrinque subrotundatis 4,5-5 \times 2,5-3 hyalinis.
Hab. in fimo vaccino, equino et caprino Amer. bor. — Si sporidia constanter hyalina, certe novi generis typus.
12. *Sordaria tetraspora* Wint. in Hedw. 1871, n. 9, p. 161, Griff. 2040
Mem. Torr. Bot. Cl. 1901, p. 62, tab. 4, fig. 1-3, *Sord. minuta* Fuck. — Syll. I, p. 231 — var. *tetraspora* Wint. Die deutschen Sordarien, p. 37. — A typo differt sporidiis in quoque ascoternis 16-22 \times 13-14; ascis 100-110 \times 18; peritheciis minoribus nempe 350-500 \times 140-180.
Hab. in fimo murino in Saxonia, in fimo equino et in graminibus putridis in Amer. bor.
13. *Sordaria vestita* (Zopf) Sacc. et D. Sacc. *Eusordaria vestita* Zopf, 2041
Zeitschrift gesamt. Naturwissenschaften 1883, p. 556, tab. 6, fig. 10-19, *Podospora vestita* (Zopf) Wint. Pilzfl. II, p. 176, *Pleurage vestita* (Zopf) Griff. Mem. Torr. Bot. Club. 1901, p. 76. — Peritheciis vulgo dense gregariis, piriformibus, 700-750 μ . alt., 400-500 μ . cr. pilis longis, olivaceis v. brunneis, simplicibus v. parce ramosis, tenuibus, subinde fasciculatis omnino vestitis, circa ostium obscurius coloratis; ascis clavatis, utrinque tenuatis, stipitatis, apapophysatis 180-210 \times 40-55; sporidiis ellipsoideis atro-viridibus, 28-35 \times 18-22, basi truncatis et appendice primaria cylindracea auctis, appendicibus secundariis cylindricis, 3-4, varie curvatis in apice sporidia et infra apicem appendicis primariæ additis.

Hab. in fimo equino, vaccino etc. in Germania et America boreali.

14. *Sordaria coprophila* (Fr.) Ces. et De Not. — Syll. I, p. 230 — Huc ducenda est *Bovilla Caproni* Sacc. — Syll. I, pag. 360, — seu *Sphæria bovilla* Cooke, quæ est illius status infans, testibus Hennings et Salmon: cfr. Hedw. 1903, p. (183).

HYPOCOPRA Fuck. — Syll. I p. 240, IX p. 490, XI p. 279, XVI p. 433.

1. *Hypocopra montanensis* (Griff.) Sacc. et D. Sacc. *Sordaria montanensis* Griff. in Mem. Torr. Bot. Club. 1901, p. 49, tab. III, fig. 1-3 et tab. 19, fig. 13. — Peritheciis sparsis, immersis 750-900 \times 450-600, membranaceis, brunneo-nigris, subglobosis, in collum longum cylindraceum desinentibus, in parte superiore setis brevibus, densis acuminatis septatis vestitis; ascis octosporis, cylindraceis, apice rotundatis vel truncatis vel apertis, longe stipitatis, 340-400 \times 29-32; paraphysibus filiformibus, septatis,asco paullo longioribus; sporidiis oblique monostichis, ellipsoideis, utrinque paullo rotundatis 45-51 \times 24-27, strato hyalino obvolutis.

Hab. in fimo equino et vaccino, Missoula, Summit in Amer. boreali.

2. *Hypocopra kansensis* Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 15. — Peritheciis ovatis 0,8-1 mm. alt. 0,5-0,8 mm. crass. in stromate immersis, olim erumpentibus; hemisphæricis, poro pertusis; stromatibus nigris subconvexis 1-2 mm. diam. v. confluentibus circ. 1 cm. diam.; ascis cylindraceis, p. sp. 200-230 \times 25-30 paraphysibus 4-5 μ . diam.; sporidiis oblique monostichis, ellipticis, utrinque acutulis 42,52 \times 18-22, hyalinis.

Hab. in fimo vaccino, Rooks Co., Kansas, in Amer. bor. — Ab *H. fimeti* Pers. sporidiis multo latioribus differt.

3. *Hypocopra pisana* Baccarini, N. giorn. bot. ital. 1904, p. 416. — Peritheciis gregariis ac sæpe dense confertis, superficialibus 300 μ . latis, in sicco rugulosis, udis levibus, membranaceo-coriaceis, ostiolo minuto, minime prominulo; ascis cylindricis, non vel vix stipitatis aparaphysatis 133 \times 17, octosporis; sporidiis atris, oblique monostichis, ellipticis, 22,8 \times 9-5, circulo hyalino tenui obvolutis.

Hab. in ossibus equinis in silva Pisana Italiæ. — Ad gen. *Roselliniam* nutat et tunc vix *Hypocopra*.

4. *Hypocopra alpina* (Griff.) Sacc. et D. Sacc. *Sordaria alpina* Griff. Mem. Torr. Bot. Club. 1901, p. 49, tab. 19, fig. 4-6. — Perithe-

ciis immersis, sparsis vel gregariis, piriformibus, membranaceis, inferne olivaceis, superne nigris, $0,5 \approx 1$ mm. diam., ostiolo longo cylindrico donatis, in parte superiore dense vestitis; setulis brevibus, pluriseptatis, brunneis; ascis octosporis, cylindræis, superne contractis v. rotundatis, longe stipitatis $270-350 \approx 18-20$; paraphysibus numerosis, septatis, ad septa subconstrictis, asco subæquilonigis; sporidiis monostichis, ellipticis, utrinque rotundatis olivaceo-brunneis $20-37 \approx 12-14$, hyalino-apiculatis et muco obvolutis.

Hab. in fimo vaccino et equino, Summit, Mont. Amer. bor.

5. *Hypocopra fimicola* (Rob.) Sacc. — Syll. I, pag. 240. — f. *microspora* Starb. in Arkiv. för Botan. 1904, Band. 2, p. 14. — Peritheciis $200-300 \mu$. latis, $350-400 \mu$. altis; ascis $58-65 \approx 9-10$; sporidiis $12-14 \approx 6-7,5$. 2046

Hab. in fimo canino, Santo Angelo prope Cachoeira, Brasilæ.
— Nullo modo nisi ascis sporidiisque minoribus a typo recedit.

6. *Hypocopra seminuda* (Griff.) Sacc. et D. Sacc. *Sordaria seminuda* 2047
Griff. in Mem. Torr. Bot. Cl. 1901, p. 50. — Peritheciis immersis, sparsis vel gregariis, piriformibus, membranaceis, basi olivaceis, superne nigris $500-600 \approx 300-400$, ostiolo papillatis, superne setulis brevibus pallide brunneis vestitis; ascis octosporis, cylindræis, superne subrotundatis vel apertis, longe stipitatis, $180-200 \approx 12-14$; paraphysibus filiformibus, septatis, persistentibus, raro asco longioribus; sporidiis oblique monostichis, ellipsoideis raro ovatis $16-22 \approx 10-12$, olivaceo-brunneis, apiculo brevi, hyalino, cylindrico donatis et muco obvolutis.

Hab. in fimo equino, Summit, Mont. Amer. bor.

PHILOCOPRA Speg. — Syll. I p. 249, IX p. 494, XVI p. 434.

1. *Philocopra heterochæta* (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2048
Mem. Torr. Bot. Cl. 1901, pag. 86, tab. XIX, fig. 1-3. — Peritheciis superficialibus vel basi insculptis, sparsis, tenue membranaceis, olivaceo-nigricantibus, subdiaphanis $700 \approx 450$, pilis septatis, agglutinatis, brevibus tectis, excluso ostiolo papilliformi; ascis 16-sporis, cylindræo-clavatis, sursum tenuatis rotundatisque, breve crasse stipitatis, $230-240 \approx 34-40$; paraphysibus valde ventricosas, agglutinatis, interdum indistinctis; sporidiis biseriatis, ellipsoideis, utrinque rotundatis $27-34 \approx 18-20$; appendicibus primariis nullis, secundariis utrinque binis, distinctis filiformibus, inferioribus, longioribus, flexuosis.

Hab. in fimo bovino, Family, Montana Amer. bor.

2. **Philocopra dakotensis** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2049
 Mem. Torr. Bot. Cl. 1901, p. 87, tab. VII, fig. 17-19. — Peritheciis sparsis, superficialibus vel basi leviter immersis, piriformibus, $600 \approx 375$, tenue membranaceis, fuscis diaphanis, pilis septatis, fuscis, in fasciculos agglutinatis, superne tectis, ostiolo papillato-conico, curvulo; ascis $220 \approx 30-40$; paraphysibus subventricosis ascos superantibus; sporidiis 2-4-seriatis, ellipsoideis, utrinque rotundatis $18-23 \approx 12-15$ ex olivaceo opace brunneis; appendicibus primariis brevibus cylindraceis, rectis, secundariis longissime subulatis.

Hab. in stercore cuniculorum et in fimo bovino, Ft. Lee, New Jersey, Brookings, Austin etc. Amer. bor.

3. **Philocopra collapsa** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2050
 Mem. Torr. Bot. Cl. 1901, p. 89, tab. X, fig. 14-18. — Peritheciis sparsis v. aggregatis, semiimmersis, $500-600 \approx 400-450$, tenui-membranaceis, e virescenti brunneis, piriformibus vel subglobosis ubique pilis longis septatis, flexuosis, brunneis vestitis; ostiolo papillato vel cylindraceo, nigro; ascis 64-sporis, fusiformibus, sub apice rotundato-constrictis, breve stipitatis $210 \approx 65$; paraphysibus ventricosis ascos superantibus; sporidiis pluriseriatis, ellipsoideis, utrinque rotundatis $18-21 \approx 10-14$, ex olivaceo opace brunneis; appendicibus primariis longissimis subclavatis, secundariis brevibus cuspidatis.

Hab. in stercore cuniculorum, New York, Auburn etc. Americæ bor.

4. **Philocopra adelura** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2051
 Mem. Torr. Bot. Cl. 1901, p. 91, tab. X, fig. 11-13. — Peritheciis immersis, sparsis, $750 \approx 450$, tenui-membranaceis, opace brunneis, piriformibus, ostiolo papillato-cylindraceo glabro; ascis 64-sporis, clavato-fusoideis, sursum tenuatis obtusisque, breve stipitatis $370 \approx 75$; paraphysibus ventricosis agglutinatis ascos superantibus; sporidiis pluriseriatis, ellipsoideis utrinque rotundatis $26-32 \approx 13-19$, ex olivaceo opace brunneis; appendicibus primariis cylindraceis, spora brevioribus et persistentibus, secundariis filiformibus, initio prælongis dein abbreviatis.

Hab. in fimo cuniculorum, Auburn, Amer. bor. — *Phil. pleiosporæ* peraffinis.

5. **Philocopra Griffithsii** Sacc. et D. Sacc. *Sordaria philocoproides* 2052
 Griff. in Mem. Torr. Bot. Club. 1901, p. 54. — Peritheciis sparsis, immersis, subglobosis, ostiolo papillato vel indistincto donatis,

300-400 μ . diam., membranaceis, nigris, setulis continuis, paucis, intense brunneis, vestitis; ascis 32-sporis cylindraceo-clavatis, superne subrotundatis vel apertis, breve stipitatis, 90-110 \times 13-20; paraphysibus filiformibus, septatis,asco paullo longioribus; sporidiis distichis, subapplanatis, subellipticis vel subcircularibus, utrinque rotundatis, 8 \times 5,5-8.

Hab. in fimo cuniculorum, New Jersey Amer. bor.

COPROLEPA Fuck. — Syll. I p. 248, IX p. 493, XVI p. 434.

1. *Coprolepa dakotensis* (Griff.) Sacc. et D. Sacc. *Hypocopra dakotensis* Griff. Mem. Torr. Bot. Cl. 1901, pag. 97, tab. XII, f. 6-8. 2053

— Peritheciis immersis, sparsis vel in minutos greges 2-4 congestis, 800 \times 600, piriformibus, basi mycelio albo demum pulviniformi stromatico immersis, ostiolo papillato nigro nitido e stromate emergente; ascis octosporis apice rotundatis obtuse breve stipitatis 225-265 \times 37-40, apice jodo cæruleo tinctis; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis biserialis ellipsoideis, utrinque rotundatis, 32-38 \times 17-19, e flavido demum atro-brunneis, strato gelatinoso lato obductis.

Hab. in fimo equino, Aberdeen S. D. Amer. bor. (Touss.) — A *Coprol. merdaria* sporidiis minoribus, biserialis distinguitur.

2. *Coprolepa rostrata* (Griff.) Sacc. et D. Sacc. *Hypocopra rostrata* Griff. Mem. Torr. bot. Cl. 1901, p. 99, tab. XII, fig. 15-18. 2054

— Peritheciis immersis in parvos soros congestis et mycelio denso pannoso albo-brunneo immersis, subglobosis vel ovoideis 300-400 μ . diam., inferne albis, ostiolo nigro, nitidulo prominenti-rostellato; ascis octosporis, cylindraceis, apice rotundatis, breve stipitatis 213-286 \times 21, jodo cæruleo tinctis; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis 29-32 \times 13-18 e flavido opace brunneis, strato hyalino obvolutis.

Hab. in fimo equino, Tucson, Arizona, Amer. bor.

3. *Coprolepa parvula* (Griff.) Sacc. et D. Sacc. *Hypocopra parvula* Griff. Mem. Torr. bot. Cl. 1901, pag. 99, tab. XIX, fig. 7-9. 2055

— Peritheciis immersis et in greges minutos congestis 300-450 μ . diam., tenui-membranaceis, inferne albis et pilis flexuosis cum stromate confluentibus vestitis, ostiolo papillato e stromate crustaceo levi emergente, glabro; ascis octosporis, cylindraceis, apice rotundatis jodoque cæruleo tinctis, longe stipitatis 95-105 \times 9-12; paraphysibus filiformibus obsolete stipitatis; sporidiis oblique mo-

nostichis ellipsoideis, utrinque rotundatis, vulgo basi acutiusculis 10-13 \times 6-7, strato mucoso hyalino obvolutis.

Hab. in fimo bovino, Sumit Mont., Amer. bor. (GRIFFITHS et LANGE).

CERATOSTOMA (Fr.) Sacc. — Syll. I p. 215, IX p. 481, XI p. 278, XIV p. 489, XVI p. 427.

1. *Ceratostoma decipiens* Sacc. et Flag. in Atti Congr. bot. di Palermo 2056
1902, p. 49. — Peritheciis subsparsis, ligno molli initio immersis, demum, pro parte, liberatis, globosis, nigris, glabris, 500-600 μ . diam., carbonaceis, ostiolo cylindraceo-conoideo, 250-300 \times 70 præditis; ascis cylindraceis, apice obtusulis, deorsum breviter tenuatis, 70-80 \times 4-5, octosporis; paraphysibus genuinis nullis; sporidiis recte monostichis, ovato-ellipsoideis, 9-11,5 \times 5-5,5 fuligineo-olivaceis, plerumque biguttatis.

Hab. in ligno carioso salicino, Rigny s. A. Galliae. — Affine *C. Avocettæ*, differt præcipue ostiolo brevior, ascis longioribus etc.

ROSTRELLA A. Zimm. Bull. Inst. bot. Buitenzorg 1900, IV, p. 19 (Etym. *rostrum* ob formam ostioli). — Perithecia immersa, globulosa, ostiolo longe rostrato emergente prædita. Asci maturi evanescentes. Sporidia ellipsoidea, uno latere membranula annuliformi prædita, continua, hyalina. Mycelium endogenum macroconidia brunnea et microconidia quoque generans. — *Microasco* affine genus videtur, sed si sporidia jugiter hyalina maneant, ad *Hyalosporas* transferendum est.

1. *Rostrella Coffeæ* A. Zimm. l. c. — Peritheciis globulosis, 100-160 2057 μ . diam., immersis, in ostiolum rostratum emergens, 200-260 μ . long., 20 μ . cr. productis; sporidiis generis, 6 \times 4, in apice ostioli in cirrum v. globulum eructatis; macroconidiis in ramulis lateralibus acrogenis, globosis, brunneis 10-15 μ . diam.; microconidiis catenulatis, inferioribus longioribus, supremis globulosis crassioribusque, usque 9-10 μ . diam.

Hab. in cortice jam emortuo *Coffeæ arabicæ*, *C. libericæ*, *Erythrinæ lithospermæ*, *Albizziæ moluccanæ*, *Cedrelæ serratæ* in insula Java. — Morbum gravem cancerosum plantis matricibus affert.

MICROASCUS Zuk. — Syll. IX p. 488, XI p. 279.1. **Microascus nidicola** Massee et Salm. Copr. fungi I, p. 380, f. 62- 2058

65. — Peritheciis nigris, glabris, carbonaceo-membranaceis, sparsis, matrice subimmersis, subglobosis 350 μ . diam., ostiolo brevi conico, contextu parenchymatico densissimo e cellulis polygonis, nigro-fuscis, plus minus opacis 8-10 μ . latis composito; ascis numerosis subgelatinosis, ellipticis v. globoso-ellipticis, 10-13 \approx 6-8, octosporis, citissime diffluentibus; sporidiis minutis anguste subulnatis, utrinque acutis, levibus, hyalinis v. stramineis 7,5-8 \approx 2.

Hab. in nido vetusto Bombi spec., Kew Britanniae.

2. **Microascus variabilis** Mass. et Salm. Coproph. fungi I, pag. 349, 2059

fig. 24. — Peritheciis gregariis, matrice subimmersis, parvulis 150-200 μ . diam., subglobosis, ostiolo minuto papilliformi v. plus minus elongato, cylindraceo, interdum flexuoso, nigris, subcarbonaceis, fragilibus, contextu parenchymatico e cellulis densis, opacis, distinctis, minutis, 3-5 μ . latis composito; peritheciis parte superiore pilis rigidis, paucis, sparsis fuliginosis, interdum obsoletis instructa; ascis minutis subglobosis, subgelatinosis 7-8 μ . diam., citissime diffluentibus, 8-sporis; sporidiis crasse, interdum irregulariter, lunulatis, minutis 3-3,5 μ . long., utrinque obtusis, levibus, dilutissime brunneis.

Hab. in fimo Dolichotidis patagonicae, Kew Britanniae.

HYPOXYLON Bull. — Syll. I p. 352, IX p. 543, XI p. 285, XIV p. 509, XVI p. 445.1. **Hypoxylon neocaledonicum** Har. et Pat. Journ. de Bot. 1903, p. 14. 2060

— Stromata turbinate, stipitata, carbonaceo, indurato, atro, apice capitato, minute sinuoso-areolato, vix nitenti, centro leniter depresso ex ostiulis prominulis papillato intus fibroso-lignoso, albido-fuliginoso; peritheciis paucis, erectis, ovoideis, atris, omnino immersis; ascis cylindraceis, octosporis, paraphysibus immixtis; sporidiis monostichis, atro-brunneis, rectis v. leniter curvis, navicularibus, 25-32 \approx 6.

Hab. ad lignum mortuum, Coinde, Carrela Novae Caledoniae (BERNIER). — Affine *H. turbinato*, a quo differt stromate apice rimoso-areolato, sporidiis longioribus. Stroma 1 cm. long., 8 mm. cr.

2. **Hypoxylon regale** Morgan, Journ. of Mycol. 1904, p. 162. — Stro- 2061

mate superficiali in plagulas minutas, irregulares effuso, e peritheciis confluentibus omnino formato; peritheciis amplis, globosis, nigris, ostiolo minute papillato; ascis cylindricis, breve stipitatis,

octosporis, 150-170 \approx 10-12; sporidiis oblique monostichis, elliptico-fusoides, inæquilateris, brunneis, 20-27 \approx 9-11; paraphysibus tenuissimis.

Hab. in ligno denudato, molli, Aceris, Liriodendri etc. Preston, Ohio Amer. bor. — Perithecia in quaque plagula 2-3 vel numerosiora, 700-1000 μ . diam.

3. *Hypoxylon multiforme* Fr. — Syll. I p. 363. — f. *minor* Starb. 2062
Ascom. Regnell. exped. II, 1901, pag. 9. — A typo differt peritheciis minoribus sporidiisque 7,5-9 \approx 4-5.

Hab. ad truncos, Paraguari, Paraguay.

4. *Hypoxylon cantareirense* P. Henn. Fungi S. Paul. III p. 207 (Hedw.). 2063
— Stromatibus orbiculari-convexis, depressis, gregariis, interdum confluentibus, 2-6 mm. diam., atro-carbonaceis, cinereo vel cretaceo-pruinosis, ostiolis atris, papillatis, pertusis; peritheciis immersis, ovoideis ca. 1 mm. diam.; ascis cylindraceo-clavatis, obtusis, 8-sporis, ca. 180 \approx 10-13, paraphysibus hyalinis, filiformibus; sporidiis oblique monostichis, oblonge navicularibus, obtusis vel subacutiusculis, atris 23-30 \approx 9-12.

Hab. in truncis emortuis, Serra da Cantareira S. Paulo Brasiliæ. — Affine *H. multiformi* sed sporidiis crassioribus præcipue distinctum.

5. *Hypoxylon cohærens* (Pers.) Fr. — Syll. I, p. 361. — var. *brasiliense* Starb. Ascom. Regnell. exped. II, 1901, p. 8, fig. 4. — A typo vix differt superficie stromatis gyrato-tuberculata (in typo levigata), sporidiis conspicue minoribus, nempe 9-11 \approx 4-5 (ascis p. sporif. 65 \approx 6-7). 2064

Hab. in cortice crassiore, Hamburgerberg, Rio grande do Sul Brasiliæ.

6. *Hypoxylon Dussianum* Pat. in Duss Enum. Champ. Guadel. 1903, 2065
p. 74. — Globulosum, sessile, sparsum v. aggregatum, brunneo-atrum, ostiolis vix exstantibus punctulatum, fragile, intus album; peritheciis immersis, peripherice ubique dispersis, ovoideo-globosis, $\frac{1}{4}$ mm. diam.; ascis . . . ; sporidiis ovoideis, inæquilateralibus, exiguis, 8-10 \approx 5-6.

Hab. in trunco Tournefortiæ volubilis, Camp Jacob Guadalupe (Duss). — Affine *H. areolato* sed sporidia minora.

7. *Hypoxylon subrutillum* Starb. Ascom. Regnell. exped. II, 1901, p. 10, 2066
fig. 7-8. — Stromatibus cortice nidulantibus, erumpentibus pulvinato-hemisphæricis, acutiuscule subrotundo-determinatis, ex peritheciis tuberculatis, sparsis vel confluentibus primo rubello-um-

brinis vel tabacinis, intus. præsertim basi coccineis, denique fusco-atratis 2.5×1.2 mm.; peritheciis sphaericis, vertice subapplanatis, nitide prominulo-papillatis, denique ore pertusis, villo furfuraceo vestitis, densissime stipatis, vix 500 μ . diam., contextu coriaceo-carbonaceo; ascis octosporis, cylindraceis, breve pedicellatis, $95-125 \times 10-12$ p. spor. $75-95$ μ . long.; sporidiis monostichis, ellipsoideo-oblongatis, inæquilateris, utrinque obtusatis, atro-fuscis.

Hab. in ramulis corticatis, Porto Alegre, Rio Grande do Sul Brasilæ. — *H. rutilo* maxime affine, sed præcipue sporidiis differt.

8. *Hypoxylon juruense* P. Henn. Fungi Amaz. II, p. 260. — 2067
 stromatibus rotundato-pulvinatis carbonaceis, ruguloso-subverrucosis vel subfavosis, ochraceo-ferrugineo-pruinosis, intus atris, ostioliis punctoideis subelevatis vel subcupulato-immersis, $1\frac{1}{2}-4$ mm. diam.; peritheciis immersis subglobosis; ascis cylindraceo-clavatis, apice rotundatis, stipitatis, 8-sporis, ca. 100-130 μ . longis, p. spor. $60-80 \times 6-8$; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, ellipsoideis v. oblongis, sæpe subinæquilateralibus, utrinque obtusis, 1-guttulatis, atro-brunneis, $10-15 \times 5-6$.

Hab. in ramis siccis, Rio Jurua, Bom Fim Amazoniæ. — Præcipue stromatibus subfavosis species dignoscenda.

9. *Hypoxylon ohiense* Ellis et Everhart — Syll. XI, p. 287. — Cfr. Harrin. Alaska Exped. Crypt. pag. 34, pl. IV, fig. 2. — Ascis clavatis tenuiter stipitatis, $68-80 \times 7-8$; sporidiis oblique monostichis, oblongo-ellipsoideis, $5.5-7.5 \times 2.5-3.5$, fuligineis; stromate 2-4 cm. longis et latis; peritheciis $1.5-1.7$ mm. longis.

Hab. ad truncos Abietis, Sitka Alaska (TRELEASE).

10. *Hypoxylon tahitense* Baccarini in N. Giorn. bot. it. 1904, p. 417, 2068
 tab. IV. — Stromate effuso, crassiusculo nigro, tubercula quamplurima erecta, globosa, breviter pedunculata, pisi magnitudinem æquantia vel superantia, peritheciifera, gerente; tuberculis minute mammosis, ob peritheciorum ostiola breviter protuberantibus, extus atris, intus carbonaceo-badiis; peritheciis crebris, monostichis, ad 700 μ . latis; ascis confertis cylindricis breviter pedunculatis, paraphysatis $150-170$ μ . longis; sporidiis cymbiformibus, monostichis, inæquilateralibus, $22-23 \times 7-8$.

Hab. ad ligna, Otaiti Polynesiæ. — Ad subg. *Cænopus* spectat. 2069

11. *Hypoxylon* (?) *sulcatum* Starb. in Arkiv för Botan. 1904, Band. 2, p. 20, fig. 47-48. — Stromatibus diatrypeoideis, plane a matrice distinctis, immersis, applanatis, lenticulariter prominentibus, varie plerumque rotundatim determinatis, interdum paullum lobulatis,

confluentibus, acute marginatis, fusco-nigris vel nigris, carbonaceis, amœne sulcatis, sulcis e linea media radiantibus, interdum patellaribus, annulo tumidulo cinctis, plerumque longitudinalibus, costis elatiusculis determinatis: peritheciis totum stroma, margine latiusculo excepto occupantibus, plane immersis, monostichis, dense constipatis, mutua depressione angulatis, vix ostiolatis; stromatibus usque ad 1,5 cm. long., 0,5 cm. latis vel circ. 2 cm. diam. 1,5 mm. altis; ascis sporidiisque non visis.

Hab. in cortice prope Rio Grande do Sul Brasiliæ. — Species mirabilis ulterius inquirenda; sec. spec. originale et figuram apud Montagne *H. heterostomum* Mont. affine videtur.

12. *Hypoxylon microsorum* Penz. et Sacc. in Malpighia 1901, p. 225, 2070

Ic. fung. Jav. t. XIX, f. 2. — Stromatibus gregariis, depressohemisphaericis, minutis vix 1 mm. diam. rubido-fuscis, intus pallidioribus, fere levibus; peritheciis immersis, 8-12 in quoque stromate, globulosis 500 μ . diam., ostioli punctiformibus obtusiuscule papillatis vix exstantibus, nigris; ascis cylindraceis (jam fere resorptis); sporidiis octonis, monostichis, elliptico-citriformibus, 9-10 \times 7, e latere levissime compressis, atro-fuligineis.

Hab. ad ramos arborum corticatos, putres, Tjibodas, in insula Java. — Spectat ad sect. *Sphaeroxyla colorata*, sed ad *Clitoxyla nutat*.

13. *Hypoxylon leucocreas* B. et Rav. — Syll. I, p. 366 — Rehm

in Ann. Mycol. 1904, p. 176. — Stromatibus lentiformibus, plus minusve lobulatis, subplanis, extus atris, vix nitentibus, ostioli prominentibus plurimis exasperatis, intus albis, 2-4 mm. d. 1-1,5 mm. alt.; peritheciis globulosis, submonostichis 0,3-0,4 mm. diam.; ascis cylindraceis tenerrimis, p. sporif. 50 \times 5, octosporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, guttas oleosas 2 includentibus, fuscidulis 5-6 \times 2-2,5 monostichis.

Hab. in trunco putri Ulmi, Texas Amer. bor. (Long).

14. *Hypoxylon Acaciæ* P. Henn. Fungi Afr. or. II, in Bot. Jahrb.

XXVIII, p. 39. — Stromatibus erumpenti-superficialibus, pulvinatis, carbonaceis, atro-brunneis, varia magnitudine, confluentibusque; peritheciis depressoglobosis intus pallidis, ostioli verruciformibus obtusis; ascis cylindraceis, apice obtusis, octosporis; paraphysibus filiformibus hyalinis; sporidiis oblongis obtusiusculis, bi-guttulatis, fuscis 8-11 \times 3-3,5. 2071

Hab. in ramis Acaciæ, Usagara Afr. or. (Busse).

15. *Hypoxylon tenue* Starb. Ascom. Regnell. exped. II, 1901, p. 10, 2072

fig. 9. — Stromate longe lateque effuso, 9 \approx 3-4, cm., arcte matrici adpresso, tenui, vix 400 μ . alto, irregulari, villo coccineofulvo, furfuraceo vestito, intus lateritio rubescenti, margine latiusculo tenuissimo sterili, nigricanti; peritheciis confertissimis globosis vel mutua pressione difformibus, superne inter se liberis, ostiolo sæpius villo carente fere umbilicato præditis, 300-400 μ . diam.; ascis octosporis, cylindraceo-clavatis, apice rotundatis, breve pedicellatis 90-100 \approx 8-11,5; sporidiis monostichis, elliptico-ovoideis, fuligineis 10,5-12 \approx 6-7,5; paraphysibus filiformibus diffluentibus.

Hab. ad truncos, San Tomas, Paraguari Paraguay. — *Hyp. crocato* maxime affine.

KRETZSCHMARIA Fr. — Syll. IX p. 565, XI p. 287, XIV p. 512, XVI p. 449, 1130.

1. **Kretzschmaria lichenoides** Rick apud Rehm, Hedw. XLIV, p. 6. — 2073

Stromate late effuso super corticem, placentiforme mycelio ramoso sub cortice extenso, super corticem stratum conidiophrum, ramosum, undulatum, lichenoidium, griseum, multifidum formante, dein in centro stromatis conidiophri stromate ascogeno oriente, stromatibus usque 10 cm. lat., 2 cm. cr. primitus griseis, dein brunneis, mutuo contactu compressis, irregularibus, rugosis, interne primitus niveis, dein atris; peritheciis nigris, difformibus, splendescens, ostiolis paucis, sed bene distinctis, atris; ascis cylindraceis, apice rotundatis et incrassatis 200-270 \approx 12, 8-sporis; sporidiis fusoides, 1-cellularibus, 1-2-guttulatis, uno latere compressis, curvulis, fuscis, strato mucoso tenui obductis, 20-27 \approx 8-10, 1-stichis; paraphysibus filiformibus septatis, 2-4 μ . cr.

Hab. ad lignum, Sao Leopoldo, Rio grande do Sul Brasilæ (Prof. Rick S. J.).

2. **Kretzschmaria scruposa** Har. et Pat. Journ. de Bot. 1903, p. 14. 2074

— Clavulis erectis obconicis, apice truncatis convexulis, deorsum attenuatis, simplicibus furcatisve undique scabrosis, fusco-atris e crusta stromatica grumosa, fusco-atra, latissime effusa assurgentibus; contextu albo coriaccello, fragili; peritheciis paucis, 3-6, erectis ovoideis, ostiolis punctiformibus, vix prominulis, scruposa parte immersis; sporidiis ovoideis, inæquilateris, atris, 10-12 \approx 6; clavulis conidiferis simplicibus sed apice capitato-inflatis, cinereis, levibus; conidiis minutis, ovoideis, levibus, vix 4 μ . longis.

Hab. ad calices Aleuritidis putres, Jahoué Novæ Caledoniæ.

(BERNIER). — *Kr. Helisco* affinis præcipue clavulis ubique scabrosis dignoscitur.

3. *Kretzschmaria australiensis* P. Henn. in Hedw. 1903 p. (83). — 2075
Stromatibus placentiformi-confluentibus, depresso-globulosis vel ovoideis, plus minus longe stipitatis, ferrugineis vel atris, ca. 2 mm. diam., ostiolis subconoideis; peritheciis subglobosis v. ovoideis; ascis clavatis, obtusis, p. spor. 200-300 \times 8-10; sporidiis oblonge navicularibus, utrinque obtusis, atris 25-35 \times 7-10.

Hab. in arborum corticibus pr. Kuranda, N. Queensland Australiae (PRITZEL). —

4. *Kretzschmaria divergens* Starb. Ascom. Regnell. exped. II, 1901, 2078
p. 6, fig. 3. — Stromate communi parco, crustaceo-membranaceo, villosa-rugoso; stromatibus solitariis, dense cæspitosis, atratis, stipitatis; stipitibus ex eadem areola parvula nonnullis divergentibus, sæpe a basi liberis, interdum confluentibus, rugosiusculis vel sublevibus, deorsum angustioribus, tereti-compressis vel difformibus, sursum latioribus et annulato-incrassatis, 4-10 \times 1-2 mm.; capitulis vulgo confluentibus e compressione difformibus, lenticularibus vel turbinatis, superne applanato-convexiusculis, centro papillulatis, inferne convexis, margine obtusissimis, carbonaceis, 3-8 \times 1-3 mm., semper a stipite discretis; peritheciis verticaliter constipatis, subovoideo-ampullaceis, 500 μ . diam., ostiolis curtis vix prominentibus; ascis octosporis cylindræis, longissime pedicellatis, apice rotundatis, p. spor. 140-160 \times 8-10; sporidiis anguste fusoides, rectis vel curvulis, utrinque acutiusculis, 1-2-guttatis, monostichis, 28-35 \times 6-7; paraphysibus copiosissimis, guttulatis, ramosis.

Hab. ad truncos Serra do Chapada, Matto Grosso Brasilæ. —

Kr. Puiggarii quam maxime affinis videtur.

5. *Kretzschmaria microspora* P. Henn. Fungi Amaz. II, p. 261. — 2077
Stromatibus cæspitose aggregatis confluentibusque, subovoideis haud stipitatis, atrofuscis, rugulosis, ostiolis papillatis, disco subannulato circumdatis; peritheciis paucis immersis, subglobulosis; ascis cylindræo-clavatis, obtusis, 8-sporis, paraphysatis, 65-75 \times 3 $\frac{1}{2}$; sporidiis oblongis subnavicularibus, utrinque obtusis, atro-castaneis, 7-10 \times 3-3 $\frac{1}{2}$.

Hab. ad lignum emortuum, Rio Juruá, Juruá-Miry Amazoniæ. — Ascis angustissimis sporidiisque minutis dignoscenda species. *K. cænopus* (Fr.) Mont., observante cl. Henn. l. c., est species denuo inquirenda, nam adsunt exempl. Wrightiana cubensia sporidiis 30-

40 \approx 8-10 et alia Berkeleyana brasiliensia sporidiis 10 \approx 12 \approx 5-6, hinc duæ species.

DALDINIA De Not. et Ces. — Syll. I pag. 393, XI pag. 288, XVI p. 449.

1. **Daldinia argentinensis** Speg. Myc. Argent. ser. II, 1902, p. 68. — 2078

Stromatibus 7-8 cm. alt., 1,5-2 mm. cr., intus septis horizontalibus subparallelis 20-25 subtenuibus atris, ornatis, nigris, pulvere deterrenti subumbrina velatis; clava cylindracea, apice obtusissime rotundata, basi eximie determinata, 40-60 mm. longa 25-30 mm. diam. minute, dense, obsoletissimeque papillato-ostiolata; ostioliis confertis minutissimis, vix prominulis; stipite 20-30 mm. longo 15-20 mm. diam., primo fusco-subpulverulento dein nudo, subnitidulo levi, non v. leniter hinc inde longitudinaliter rugoso; peritheciis dense constipatis, cylindraceis 1,5 mm. longis 0,5-0,75 mm. diam., non prominulis; ascis cylindraceis 6-7 μ . diam. mox evanescentibus; sporidiis monostichis, levibus, utrinque subacutiusculis 9-10 \approx 5, eguttulatis, navicularibus, opace fuliginis.

Hab. ad truncos, prope Puerto Pampa in Argentina (E. KERMES). — Species vix *D. angolensi* (Welw. et Curr.) Sacc. affinis.

2. **Daldinia clavata** P. Henn. Fungi blumenavienses II, in Hedw, 1902, 2079

p. 14. — Lignicola; stromatibus carbonaceis, clavatis, substipitatis, late compressis, atris, rufo-pruinosis, usque ad 6 cm. longis, 2 cm. latis, vertice rotundatis, interdum furcato-incisis, intus concentricè discolori-zonatis; peritheciis ovoideo-ellipsoideis ca. 1 mm. longis, 0,5-0,8 mm. latis, ostioliis punctiformibus, subpapillato-prominulis; ascis clavatis, apice obtusis 45-55 μ . longis, p. sporif. 35-45 \approx 7-9; sporidiis oblique monostichis, ellipsoideis, utrinque obtusis, atris, continuis 8-11 \approx 4-5; paraphysibus filiformibus, hyalinis, guttulatis ca. 1-1,5 μ . crassis.

Hab. in truncis, St. Catharina Brasilæ austr.

3. **Daldinia cognata** Har. et Pat. Journ. de Bot. 1903, pag. 15. — 2080

Stromatibus gregariis, subglobosis in pedicellum brevissimum contractis, primo ferrugineo-pruinosis, dein atris nitentibusque, levibus 6-25 mm. diam., intus stratis concentricis albidis notatis, ostioliis minutis, vix prominulis, punctiformibus; peritheciis ovoideis, stromate immersis; sporidiis oblongis, atris, 8-10 \approx 4.

Hab. ad truncos Acaciæ emortuos, Tendea Nova-Caledonia (BERNIER). — *Dald. vernicosæ* et *Dald. loculatæ* affinis sed sporidiis minoribus aliisque notis diversa.

4. **Daldinia cuprea** Starb. Ascom. Regnell. exped. II, 1901, pag. 5, 2081
fig. 2. — Stromatibus clavatis, teretiusculis v. subcompressis, 3,5-4,5 cm. longis, 1-1,5 cm. latis; contextu laxissimo albo, concentricè nigro-stratoso, cortice duriusculo, coriaceo-carbonaceo, castaneo v. obscure cupreo; stipite basi angustiore longitud. plicatulo, transversim tenuiter tuberculato-annulato, sursum sensim in receptaculum transeunte; receptaculo peritheciis prominentibus verruculoso, apice obtuso; peritheciis densis monostichis, sphaeroideis, minute ostiolatis, 250 μ . diam. papillula annulatim truncata præditis; ascis octosporis, linearibus, apice rotundatis, 58-60 \approx 6-7; sporidiis monostichis, ovoideis, inaequilateralibus vel subcurvulis, fuscis, 10-11 \approx 5,5-6; paraphysibus numerosis, flexuosis, ramulosis, diffluentibus.

Hab. ad truncos, Carro Negro, Paraguari Paraguay. — Pulcherrima species *D. angolensi* affinis.

5. **Daldinia Gollani** P. Henn. F. Indiæ orient. I, in Hedw. 1901, 2082
p. 339. — Stromatibus hemisphaericis v. subglobosis, sæpe confluentibus, carbonaceis, 0,5-1 mm. diam., rufo-brunneis, glabris, opacis, massa atra sporarum pulverulentis, intus stratis concentricis albidis v. fuscidulis nitentibus zonatis; peritheciis ovoideis v. oblongis ca. 0,6-0,8 mm. longis, 0,3-0,4 mm. latis, ostiolis haud promiuntibus; ascis cylindræis, pedicellatis, apice obtusis, octosporis; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, ellipsoideis, utrinque obtusis, castaneis 5-9 \approx 3,5-4.

Hab. in ramis emortuis Fici Caricæ, Sivalik Range Indiæ orient.

6. **Daldinia Eschscholzii** (Ehrenb.) Rehm, Ann. Mycol. 1904, p. 173, 2083
Sphaeria Ehrenb. F. Chamiss. p. 59, t. 18, fig. 8. — Stromatibus latis, basi sessilibus, subreniformiter orbicularibus, haud stipitatis, usque 6 cm. diam., 2 cm. altis, convexis, nigris, æqualiter tenuissime pruina cuprea obductis et in superficie ostiolis minimis punctulatis, intus pluries zonatis; zonis 1 mm. latis, flavo-fuscidulis, linea tenuissima fusca separatis, spongiosis, haud carbonaceis; peritheciis monostichis, oblongis, arcte congregatis 1-1,2 mm. longis 300-400 μ . latis; ascis cylindræis, subevanidis; sporidiis ellipsoideis, rectis vel subcurvatulis, utrinque obtusis, fuscis, 1-cellularibus, 10-12 \approx 5.

Hab. ad lignum putridum, Texas, Amer. bor. (LONG et LUZON PHILLIPPI, CHAMISSO). — A *D. concentrica* (Bolt.) imprimis stromate haud carbonaceo sed spongioso, pruina cuprea obducto, non

minus sporidiis minoribus diversa. Sec. hanc insignem pruina cupream nostra exemplaria ad *D. Eschscholzii* pertinere videntur, quæ secundum descriptionem valde a *D. concentrica* divergit (Rehm).

7. *Daldinia vernicosa* (Schw.) Ces. et De Not. — Syll. I, p. 394. — 2084
f. *microspora* Starb. Ascom. Regnell. exped. II, 1901, pag. 6. —
Recedit sporidiis elliptice v. circulariter disciformibus, angulosis,
8,5-10 × 5-6.

Hab. ad truncos mucidos, Guia, Matto Grosso Brasilæ.

NUMMULARIA Tul. — Syll. I p. 395, IX p. 569, XI p. 288, XIV p. 513, XVI p. 1129.

1. *Nummularia pezizoidea* P. Henn. Fungi Amaz. III, p. 260 (Hedw). 2085
— Stromatibus primo tectis dein erumpentibus margine crasso cortice velatis, rotundato-discoideis atro-carbonaceis; ostioli punctiformibus elevatis, ca. 4-8 mm. diam.; peritheciis immersis suboblongis; ascis clavato-cylindræis, obtuse rotundatis, p. sp. 80-90 × 8-10; paraphysibus filiformibus guttulatis ca. 1 1/2-2 µ. crassis, hyalinis; sporidiis oblique monostichis, ovoideis v. subfusoides, utrinque subacutis, brunneis 10-13 × 5-8.

Hab. in cortice arborum, Rio Juruá, Marary Amazoniæ. —
Habitu *N. discretæ* æmula, sporidiis fusoides omnino recedit.

2. *Nummularia commixta* Rehm, Hedw. XLIV, p. 6. — Stromatibus 2086
per corticem laceratam emergentibus, in cortice interiore linea atra diffusa late circumscriptis, oblongis, 1-4 cm. long., 0,5-1 cm. lat.: 2 mm. cr., convexulis, fusco-atris, nitentibus, carbonaceis, papillis minimis, semiglobosis apice truncatis, et impressis, poro vix perspicuo pertusis, subverruculosis; ascis cylindræis longissimis, octosporis; sporidiis fusiformibus, rectis vel subcurvatis, 1-cellularibus, dilutissime brunneolis, 25-27 × 7-8, monostichis.

Hab. ad ramulum, Petropoli, Rio de Janeiro Brasilæ (Doct. v. HÖHNEL). — Ostioli minutis et sporidiis majusculis prædistincta species.

3. *Nummularia fuscella* Rehm, Ann. Mycol. 1904, p. 176. — Stroma- 2087
tibus peridermio albescente lateraliter subconspicuo tectis dein nudis, oblongis vel orbicularibus, mox confluentibus, primitus distincte nigro-marginatis 1-2 cm. longis et latis, planis, subfuscis, ostioli haud protuberantibus nigropunctatis, intus nigris, carbonaceis, corticem internam linea tenui nigra percurrentibus; peritheciis arete congregatis, ovoideis, usque 0,8 mm. latis, monosti-

chis; ascis evanidis; sporidiis ellipsoideis, subfuscis, 1-cellularibus, 12-15 \approx 7.

Hab. ad lignum decorticatum Celtidis, Texas Amer. bor. (Long). — Proximum *Hypoxylon atropunctatum* (Schw.) Cooke (= *Anthostoma atropunctatum* Sacc.) sporidia 25-30 \approx 10-12 præbet; nostra sporidiis multo minoribus imprimis diversa, ad *Nummulariam* stromatis causa ponenda species; *Hyp. atropurpureum* Fr. colore atropurpureo, *Anthostoma formosum* Ell. et Ev. in Celtide, sporidiis 7-10 \approx 3-4 divergunt (Rehm).

4. *Nummularia flosculosa* Starb. Ascom. Regnell. exped. II, 1901, 2088 p. 11, fig. 10-11. — Stromatibus longe latequæ effusis, subdeterminatis, crustæformibus, carbonaceis, intus atratis, extus sordide fusco-nigris 0,5-1 mm. altis; peritheciis monostichis, numerosis, densissime constipatis, cylindrico-obpiriformibus; ostiolis longiusculis hinc inde aggregatim erumpentibus.

Hab. ad truncos, Santo Angelo, Rio Grande do Sul Brasilæ. — Ad superficiem stromatis in concavitatibus, linea circulari vel subflexuosa determinatis, ostiola aggregata ornamentum effiguratum patellarum 5-30, acutiuscule et verticaliter et annulatim marginatarum instar formant, qua re species mox cognoscenda. Concavitates ostiolorum 100-500 μ . diam.; perithecia 60-100 μ . diam. et 500 μ . alta. Asci et sporidia jam resorpta.

SOLENOPLEA Starb. Ascom. Regnell. exped. II, 1901, p. 13 (Etym. *solen* tubus et *pleos* plenus). — Stroma marginatum, fere totum peritheciis cylindricis altissimis plenum. Asci numerosissimis e parietibus perithecii ubique oriundi. Sporidia continua, fuliginea.

1. *Solenoplea microspora* Starb. l. c. fig. 13-15. — Stromatibus immersis v. erumpentibus, solitariis v. longitudinaliter confluentibus, ellipsoideis, utrinque subacuminatis, applanatis, extus carbonaceis, atris, 2-4 cm. long. 4-15 mm. latis; peritheciis anguste cylindraceis v. subprismaticis, stromatis altitudine, vulgo 8 mm., 1 mm. cr., membranaceis; ascis copiosissimis cylindraceis apice rotundatis, breve pedicellatis, p. sporif. 15-30 \approx 3-4; sporidiis octonis, monostichis, minutissimis, ovoideis e latere compressiusculis, medio depresso-biconcavis, olivaceis, 2-3 \approx 1-1,5; paraphysibus nullis.

Hab. ad truncos San Antonio pr. Asuncion, Paraguay. — *Nummularia discoideæ* affinis videtur.

CAMILLEA Fr. — Syll. I p. 346, IX p. 541.

1. **Camillea turbinata** (Berk.) Speg. cfr. Syll. IX, p. 541, n. 2203 2090
nota — var. *obpatellata* Starb. Ascom. Regnell. exped. II, 1901, pag. 4, fig. 1. — Stromatibus turbinatis, apice acutiuscule marginatis, obpatellatis, basi 4-5 mm. lat., superne 8-17 mm. diam., 6-12 mm. alt., margine patellæ 1-3 mm. lato; peritheciis 2-3 mm. alt.; sporidiis ovoideis curvulis, utrinque rotundatis, fuligineis, 12-18 \times 6-9.

Hab. ad truncos putres, Santo Angelo pr. Cachoeira, Rio Grande do Sul Brasiliæ. — A var. *guaranitica* Speg. parum differt forma magnitudineque sporidiorum et stromatum.

PORONIA Will. — Syll. I p. 348, IX p. 542, XI p. 285, XVI p. 451.

1. **Poronia hemisphærica** Starb. Ascom. Regnell. exped. II, 1901, 2091 p. 12, fig. 12. — Stromate stipitato, e basi sclerotioidea, fusco-atra difformi et marcida, primitus verisimiliter claviformi, stipitem versus angustiore, subhorizontali 1,5 cm. alto, 5-8 mm. lato; stipite glabrescente vel rugosiusculo, longitudinaliter striato, coriaceo 4-5 cm. longo, 1-2 mm. cr., sursum sensim angustiore; capitulo hemisphærico infra plano vel fere concaviusculo, radiatim striatulo, sursum convexo ochraceo, margine acutiusculo, ostiolis prominulis, nigro-punctato, 4-5 mm. lato, 2-3 mm. alto, molliter carnosio dein fragili; ascis immaturis visis.

Hab. in fimo equino prope Arecá, Matto Grosso Brasiliæ. — Affinis *Por. Doumetii* Pat.

2. **Poronia polyporoides** P. Henn. F. Indiæ or. II in Hedw. 1901, 2092 p. 340. — Stromatibus carnosis, pileiformibus, stipitatis, convexis, cretaceis, margine undulatis, superne atro-punctatis, 4-9 mm. d., extus pallidis, furfuraceis, stipite subtereti longe radicato, albedo, subfurfuraceo, ca. 5 mm. longo, 1-1,5 mm. cr.; peritheciis immersis subglobosis, subhemisphærico-prominulis; ascis clavatis, obtusis 80-90 μ . longis, p. sporif. 60-65 \times 7-8, octosporis; paraphysibus filiformibus, hyalinis 1-1,5 μ . cr.; sporidiis oblique monostichis, ellipsoideis, obtusis, 9-12 \times 5-6, atris.

Hab. in ramis emortuis et ad terram, Saharanpur-Garden Indiæ orient.

SQUAMOTUBERA P. Henn. Hedw. 1903, p. (308) (Etym. *squama* et *tuber*). — Stromata subterranea (?) tuberiformia, rotundato-de-

pressa, intus subcarnosa, pallida, extus membranis subpapyraceis squarrosis vestita. Hyphæ fertiles septatæ, ramosæ. Conidia catenulata subglobosa v. ovoidea, hyalina. Perithecia stromate atro ubique immersa, ostiolis subhemisphæricis, punctiformibus, atris. Asci octospori, cylindranei. Sporidia oblongo-fuscoidea, fusca. — *Penzigiae* et *Engleromyceti* affine genus.

1. **Squamotubera Le-Ratii** P. Henn. l. c. *Charact. gen.* — Stromatibus 2093 siccis 7 cm. longis, 5 cr. lat., 15 mm. cr. squamis griseis vestitis; hyphis conidiophoris 2-4 μ . cr., conidiis longe catenulatis subgloboso-ovoideis, granulosis v. verrucosis, 6-9 μ . long.; peritheciis periphericis atro-carbonaceis, ellipsoideis v. ovoideis, 0,8-1 mm. long., 0,5-0,8 mm. cr., ostiolis prominulis; ascis cylindraneis, 8-sporis; sporidiis oblique monostichis, oblongo-fuscoideis, utrinque obtusiusculis, 1-3-guttulatis, 12-17 \approx 4-6, atro-fuliginosis.

Hab. subterranea?, in collibus pr. Nouméa Novo-Caledoniæ (LE RAT).

CAPNODIELLA Sacc. Syll. fung. I (1882) p. 74 (ut subg. *Capnodii*), *Sorica* Giesenh. Berichte Deut. Bot. Gesell. 1904, p. 195, t. XIII, — Stroma filiforme cylindricum apice perithecium singulum longicolle gerens; perithecium firmum, siccum subcorneum. Asci longe stipitati, clavati, octospori, aparaphysati. Sporidia globosa, unicellularia, brunnea. Adsunt associata pycnidia globulosa, brevius stipitata et conidiophora filiformia septata, apice capitulum conidiorum ferentia. — Videretur, teste cl. Giesenhagen, *Xylaria simplex* nec genus capnodiaceum.

1. **Capnodiella maxima** (B. et C.) Sacc. *Sorica maxima* (B. et C.) Giesenhag. Berichte Deut. Bot. Gesell. 1904, p. 358, *Capnodium maximum* B. et C. — Syll. I, p. 74 — *Sorica Dusenii* Giesenh. Berichte Deut. Bot. Gesell. 1904, p. 192. — Stromatibus vix 2 mm. longis, fasciculatis, ubique conidiophora simplicia piliformia gerentibus; conidiis minutis ovoideis, hyalinis; peritheciis oblongis longicollibus; ascis clavatis 8-11 μ . cr., cum stipite ca. 100 μ . long.; sporidiis subdistichis, 5-7 μ . diam., brunneis 1-guttatis; pycnidiis 150-170 μ . diam.; sporulis fuscoideis 8-10 \approx 2, subhyalinis.

Hab. parasitica ad soros Polypodii crassifolii M. Serrat in prov. Rio de Janeiro Brasiliæ (P. DUSÉN) et Polypodii sp. in insula Cuba.

XYLARIA Hill. — Syll. I p. 309, IX pag. 523, XI pag. 283, XIV p. 504, XVI p. 442.

1. *Xyloglossa*.

1. *Xylaria polymorpha* (Pers.) Grev. — Syll. I, p. 309. — var. *acuminata* Starb. Ascom. Regnell. exped. II, 1901, p. 21, fig. 35-36. — Stromatibus subsessilibus basi nigricanti-villosis, sursum dilatatis abrupteque in apicem acuminatum sterilem contractis; peritheciiis majusculis protuberantibus; sporidiis 22-25-32 \times 6-8. 2095

Hab. ad truncos Rio Grande do Sul Brasiliæ et pr. Asuncion Paraguay. — Stromata 20-40 \times 8-14 \times 4-6 mm.

2. *Xylaria xanthophæa* Penz. et Sacc. in Malpighia 1901, p. 226, 2096
Ic. fung. Jav. t. XXII, fig. 3. — Stromate tereti-clavato, apice obtuso, carnosulo-molli, flavo-brunneo; parte ascigera superiori, extus ab inferiori sterili seu stipite vix distincta; peritheciiis penitus immersis, in 4 v. 5 pluresque series dispositis, perfecte sphaericis, 400-500 μ . diam., nigris, sed non carbonaceis; ostioliis perexiguis vix visibilibus; ascis cylindricis, apice obtusulis 50-65 \times 3,5-4; sporidiis oblique monostichis, ellipsoideis, minutis, 4-5 \times 3,5 fuliginis.

Hab. ad truncos, Tjibodas, in insula Java (M. FLEISCHER). — Ad sect. *Xyloglossa* pertinet, sed structura peculiari prædistincta.

3. *Xylaria Weinlandii* P. Henn. F. Indiæ orient. II, in Hedw. 1901, 2097
p. 341. — Stromatibus cylindræeo-clavatis, stipitatis, apice obtuso rotundatis, ferrugineo-corticatis, striatis v. rugulosis, 1-2 cm. longis, 2-3 mm. cr., intus farctis, pallidis; stipite tereti, strato, ferrugineo 1-2 cm. longo, 1-1,5 mm. cr.; peritheciiis immersis, subovoideo-globosis, atris, 0,3-0,5 mm. diam., ostioliis subhemisphaerico-prominulis, atris; ascis cylindræeo-clavatis, breve attenuato-stipitatis, apice obtusis, 150-160 \times 7-8, octosporis; paraphysibus filiformibus, hyalinis, copiosis; sporidiis fuscoideo-allantoideis, utrinque subacutiusculis, atris 20-28 \times 5-7.

Hab. in trunco emortuo, Novo-Guinea.

4. *Xylaria peperomioides* P. Henn. F. Indiæ orient. II, in Hedw. 1901, 2098
p. 340. — Stromatibus cylindræeo-clavatis, longe stipitatis, clavula utrinque attenuata, apice conoideo-acuta, pallide umbrinis 1-4 cm. longis, 2 mm. cr., intus farctis pallidis; stipite flexuoso, longe radicato, atro-brunneo corneo, usque ad 4 cm. longo, 1 mm. cr.;

peritheciis immersis subovoideis, ostiolis conoideis acutis prominentibus, atris; ascis cylindraceo-clavatis, apice rotundato-obtusis, longe stipitatis, p. sporif. $20-25 \times 3-3,5$; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, atris $3-3,5 \times 2,5-3$.

Hab. ad terram, Saharampur-Garden Indiæ orient.

5. **Xylaria paraensis** P. Henn. Fungi paraenses II, in Hedw. 1902, 2099 p. 17. — Stromatibus clavatis, longe stipitatis, alutaceo-ferrugineis, pruinosis, 4-5 cm. altis; stipite subtereti, basi discoideo 2-3 cm. longo, 1-1,5 mm. cr.; clavula subcylindraceo-compressa, obtusa, 2-3 cm. longa, 3-5 mm. lata, alutacea, rimosa, sicca longitudinaliter sulcata, subinvoluta, intus pallida; peritheciis immersis, subglobosis v. ovoideis, atro-carbonaceis, apice obtuse rotundatis, basi attenuato-stipitatis p. sp. 120-140 \times 8-10; paraphysibus filiformibus 2-3 μ . cr.; sporidiis monostichis oblonge ellipsoideis utrinque obtusis, rectis v. curvulis, atris 18-22 \times 5-7.

Hab. in ligno putri, Pará Amer. austr.

6. **Xylaria Huberiana** P. Henn. Fungi paraenses II, in Hedw. 1902, 2100 p. 17. — Cæspitosa; stromatibus conidiophoris erectis, simplicibus, subulatis v. ramosis 1-1,5 cm. altis, rugulosis, ramulis compressis, subulatis; stromatibus perithecigeris clavatis, stipite brevi, rugoso levi, usque ad 5 mm. longo, 1-1,5 cm. cr., atro; clavulis oblonge ovoideis, compressis, apice obtusis vel acutiusculis; tuberculato-verrucosis, ca. 5-10 mm. long., 4-5 mm. latis; peritheciis immersis, subglobosis; ascis cylindraceis, pedicellatis; octosporis oblique monostichis, oblongis inæquilateralibus, utrinque obtusis v. acutiusculis, 20-30 \times 6-10, atris.

Hab. in ligno putri, Pará Amer. austr.

7. **Xylaria grammica** Mont. — Syll. I, p. 317. — var. **blumenavica** 2101 P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 15. — Stromatibus usque 20 cm. longis; stipite circa 4 cm. longo; ascis 75-80 \times 4-5, stipite 15-20 μ . longo; sporidiis 10-12 \times 4.

Hab. in lignis, St. Catharina Brasilæ austr.

8. **Xylaria coccinea** P. Henn. Hedw. 1904, p. 89. — Stromatibus 2102 subclavatis, subpedicellatis, apice obtuse rotundatis, interdum longitudinaliter sulcatis, amene coccineo- vel sanguineo-corticatis, subnitentibus, ostiolis punctiformibus subhemisphærico-prominulis, atris, intus atro-carbonaceis, 2-2,5 cm. longis, 4-7 mm. cr., stipite brevi subatro; peritheciis immersis subglobosis; ascis cylindraceis p. spor. ca. 70-100 \times 5-6, octosporis, paraphysatis; sporidiis

monostichis oblonge fusoideis, inæquilateralibus, utrinque obtusis vel subacutis, atris 15-20 × 4-6.

Hab. in lignis putrescentibus, Macahé, Rio de Janeiro Brasilæ.

9. *Xylaria brevipes* Starb. Ascom. Regnell. exped. II, 1901, pag. 16, 2103
fig. 22-23. — Stromatibus cæspitosis, simplicibus vel bifurcatis; clavulis cylindraceis interdum compressis, longitudinaliter medio plicatis; peritheciis prominentibus sæpe sulcato-torulosis 1-3 cm. long., 1-3 mm. latis; stipite breviusculo tereti vel subcompresso, villosulo, basi bulboso pannoso; columella fragili, pallide brunnea; peritheciis globosis, majusculis 400-500 μ . diam., papillula erumpentibus; ascis fere resorptis; sporidiis octonis, monostichis, inæquilateralibus, utrinque obtusis, fuligineis, 9-11 × 5-6.

Hab. ad truncos dejectos, Buriti, Matto Grosso Brasilæ. —

Videtur affinis *Xyl. columnifera* Mont.

10. *Xylaria reniformis* Starb. Ascom. Regnell. exped. II, 1901, p. 21, 2104
fig. 30. — Stromatibus subglobosis v. inferne applanatis, semiglobosis vel reniformibus, siccis collabentibus, demum rimosis, extus carbonaceis, medulla ochracea, sicca contracta, tabacino-violascenti, 15 mm. diam. vel 22-25 mm. lat., 12-15 mm. cr., 12-22 mm. alt.; stipite a clavula distincto, brevi, oblique fixo v. bifurcato, basi subdilatato, vix rugosulo, atrato, 4-6 × 2-3 mm.; peritheciis perifericis, monostichis, subglobosis, 300-500 μ . diam.; ostioli punctiformibus, centro papillulatis, vix prominentibus, nigris; ascis cylindraceis, longiuscule pedicellatis apice rotundatis 140-160 × 8-12 p. spor.; sporidiis octonis, monostichis, fusoideis, utrinque acutiusculis, fuligineis, 25-30 × 6-10; paraphysibus filiformibus, ramulis, guttulatis.

Hab. ad truncos, Buriti, Matto Grosso Brasilæ. — *Habitus Penzigiam cranioidem* in memoriam revocat.

11. *Xylaria corrugata* Har. et Pat. Journ. de Bot. 1903, p. 13. — 2105
Valde polymorpha, sæpius in laminam applanatam superne latiorrem basi cuneiformiter attenuata compressa, 3-5 cm. alta, 4 mm. cr., apice 2-4 cm. lat., nonnullis formis diversis sed semper compressis ludens; stipite recto, carbonaceo, subcylindrico, plus minus sulcato-rugoso, rufo-atro, statu juvenili tenuiter scruposo-villoso, dein glabriusculo, clava a stipite discreta, atra, corrugata, minute rugosa, ostioli vix prominulis conspersa, intus farcta, albida; peritheciis immersis, globosis, atris; sporidiis subfusoideis, inæquilateris, 20 × 10.

Hab. ad lignum emortuum, Men-Non Novæ-Caledoniæ (BERNIER).

12. *Xylaria hemiglossa* Pat. in Bull. Soc. Mycol. 1902, pag. 301, 2106
t. XIV, fig. 1. — Simplex; stromate indurato, lignoso, brunneo-atro, sublanato, levi, ostiolis minutissimis sub lente punctato, intus albo, supra convexo peritheciogeroque, infra marginato, margine obtuso involuto, subtus plano concavo sterili, primitus subhemisphærico dein lanceolato, apice obtuse acutato; stipite brevi, glabro, concolori, laterali, tuberculiformi; peritheciis immersis, confertis, monostichis, ovoideis, ostiolis vix exsertis; sporidiis brunneis $7-8 \times 5$, simplicibus, ovoideo-inæquilateralibus.

Hab. ad truncos emortuos Novæ-Caledoniæ. — Inter *Xylariam* et *Hypoxydon* intermedia.

13. *Xylaria bertiioides* Starb. Ascom. Regnell. exped. II, 1901, p. 16. 2107
fig. 20-21. — Stromatibus dense gregariis, sæpe inter se liberis, raro 2-pluribus connexis; stipite tenui vel robustiore difformi, sæpe compressiusculo 0,2-2 mm. long. 0,2-1, mm. cr., vulgo abrupte in clavulam transeunte, clavula valde versiformi ovoidea vel multangula, utrinque acutata, undique fertili, vix apice excepto, 0,5-4 \times 0,2-3 mm., rufo-atrata stipiteque tuberculis polygonis, sæpissime sulcatis, 250-350 μ . diam., dense ornatis; peritheciis perpaucis, immersis, sphæroideis vix prominentibus; ascis cylindraceis, longiuscule pedicellatis, apice obtusis, p. spor. 65-75 \times 6,5, octosporis; sporidiis monostichis discoideo-canaliculatis 9-11,5 \times 6-1 \times 1,5; paraphysibus guttulatis.

Hab. ad corticem crassiorem, Buriti, Matto Grosso Brasilæ. — *Bertiam moriformem* habitu æmulatur; *Xyl. vernicosæ* et *X. humili* proxime affinis.

2. *Xylocoryne*.

14. *Xylaria claviformis* Starb. Ascom. Regnell. exped. II, 1901, p. 17. 2108
— Stromatibus sessilibus vel brevissime stipitatis, clavatis vel ovoideis, primo teretiusculis, integris, dein e latere collabentibus, sæpe longitudinaliter medio rimosis, carbonaceo-fragilibus, extus fusco-nigris, villo fasciculatim tuberculoso, brevissimo, olivaceo fuscescente, præsertim basim versus vestitis, intus excavatis ochraceis 10-12 \times 4-6 mm.; peritheciis omnino immersis, sphæroideis, lenticulariter emergentibus, 400-600 μ . diam., ostiolo 50-75 μ .

diam., albido-farinoso; ascis jam resorptis; sporidiis ovoideis v. ovali-oblongatis, utrinque rotundatis vel acutulis, plerumque biguttatis, $9 \approx 4$.

Hab. ad truncos, Buriti, Matto Grosso Brasilæ. — *Xyl. cubensi* proxime affinis, sed potius e sect. *Xylocoryne*.

15. *Xylaria barbata* Starb. Ascom. Regnell. exped. II, 1901, p. 14, 2109 fig. 19. — Stromate ovato vel cylindraceo-clavato, utrinque obtuso vel fere applanato, pilis densis subinde fasciculatis, rigidis, parce septatis villosulo-rugosis, atratis; clavula $25 \approx 10$ mm., stipite æquali, atro-velutino $40 \approx 2,5-3$ mm. suffulta, extus carbonacea fragili; medulla ochracea laxissima; peritheciis periphericis, monostichis, sphæroideis, immersis, conico-lenticulari-emergentibus, minute papillatis, maximis 0,5-1,5 mm. diam.; ascis cylindraceis, breviter pedicellatis, apice rotundatis $150-170 \approx 10-12$; sporidiis octonis, monostichis, fusiformibus, rectis vel curvulis, utrinque acutiusculis, sæpe guttulatis, fuligineis $32-37 \approx 7,5-9$; paraphysibus guttulatis, hyalinis, ascos superantibus.

Hab. ad truncos, Colonia Ijuí, Rio Grande do Sul Brasilæ. — *Xyl. tigrinæ* affinis videtur.

16. *Xylaria similis* Starb. Ascom. Regnell. exped. II, 1901, pag. 23, 2110 fig. 33-34. — Stromatibus anguste cylindraceis v. basi vix crassioribus, interdum subtortuosis, rectiusculis, rugosiusculis, fusco-nigris inter areolas fuscescentibus, ex ostioliis minute asperulis, nitide nigris, punctulatis, 10-35 mm. long., 2-4 mm. cr.; stipite paullo dilutiore, adpresse fusco-villosulo, 5-17 mm. long., 2-3 mm. cr.; ascis linearibus, longiuscule pedicellatis, apice rotundatis, p. s. $56-70 \approx 6-7,5$; sporidiis octonis oblique monostichis, ovoideo-ellipsoideis, utrinque acutiusculis, fuligineis $9 \approx 5$; paraphysibus guttulatis ascos superantibus. cus

Hab. ad truncos Coxipó, Mirim, Matto Grosso Brasilæ. — *hispidulæ* et *X. Holmbergi* affinis. - 2105

17. *Xylaria californica* Earle in New York Bot. Gard. 1902, p. 347. 21. — Gregaria vel subcæspitosa; stromatibus tenuibus, simplicibus erectis vel curvulis, 7 cm. long. vel plus, ad basim dense hirsutis 1,5 mm. crassis; setulis basalibus intense brunneis fere nigris; clavulis perithecigeris 2-2,5 cm. longis, et 2 mm. crassis; peritheciis 50 vel plus, prominentibus, subhemisphæricis, nigris, ostiolo papilla crassa prædito; ascis cylindraceis $75-85 \approx 7$; sporidiis longitudinaliter monostichis, subinæquilateralibus, nigro-brunneis, $14 \approx 6$; sporidiis fusiformibus, hyalinis, continuis $10-11 \approx 3$.

Hab. in ramis dejectis, terra immersis, Coast Range, S Mateo Californiæ.

18. *Xylaria argentinensis* Speg. Myc. Argent. ser. II, 1902, p. 69. 2112

— Stromatibus sæpius cæspitosis, rarius solitariis 20-40 mm. alt., aterrimis; clavulis difformibus, typice ovatis vel elliptico-ovatis 8-20 mm. long., 5-10 mm. diam., sed non raro conoideis, globosis, leniter denseque subgranulato-colliculosis, fere ut fructus rubi, nigris sed sub luce refracta cærulescentibus, sæpe pulvere grumoso albido hinc inde laxè adpersis, apice acutis v. obtusissimis, basi abrupta cuneatis ac in stipitem 10-20 mm. long., 2-2,5 mm. cr. subiculo rigido, atro, pannoso, atro-olivaceo arcte vestitum productis, intus compactissimis, candidis, sublignosis; peritheciis globosis, prominulis, periphericis 0,5-1 mm. diam.; ascis cylindraceis 10-11 μ . cr., cito diffluentibus; sporidiis monostichis, fusoideo-navicularibus, utrinque acutiusculis, 28-30 \times 7-8, eguttulatis v. grosse 1-3-guttulatis, levibus.

Hab. ad ramos dejectos putrescentes prope Puerto Pampa in Argentina (E. KERMES).

19. *Xylaria violaceo-pannosa* Starb. Ascom. Regnell. exp. II, 1901, 2113

p. 24, fig. 27. — Stromatibus simplicibus, stipite curto ad basin pannoso, bulboso-conico, intus amœne violaceo v. atro-violaceo, extus fusco, cortice membranaceo, toto fragili vestito, 10-15 \times 5-8 mm., clavula clavata, compressa, irregulariter undulato-plicata v. curvata, superne obtusa v. subtruncata, hinc inde verruculoso-rugosa v. villo (an reliquiæ st. conidiophori?) hyphis brevibus intricatis composito obsessa, peritheciis punctata, areolato-rimosa, contextu coriaceo-carbonaceo, atro-violaceo, 20-25 \times 6-10 \times 2-5 mm.; peritheciis monostichis, globulosis, 300-400 μ . diam., disculo atro medio papillato; ascis cylindraceis 80 \times 6, stip. 25 μ . longo; sporidiis octonis monostichis, ellipsoideis, curvulis, utrinque obtusis, 10-11 \times 5-5,5; paraphysibus filiformibus diffluentibus.

Hab. ad truncos, San Antonio pr. Asuncion, Paraguay (LINDMAN).

— *Xyl. corniformi* et *X. Holmbergii* affinis, a prima colore, ab altera statura minore etc. dignoscenda.

20. *Xylaria Juniperus* Starb. Ascom. Regnell. exp. II, 1901, p. 19, 2114

fig. 27. — Stromatibus gregariis vel parce cæspitosis, simplicibus, rarius 2-3 fasciculatis sæpissime stipitatis; stipite 6 \times 1-2 mm., rugosiusculo villosus, difformi, parte perithecigera undique fertili plerumque pileiformi a stipite discreta v. cylindraceo-ovata v. conice cupressiformi, cinereo-atrata, superficie undulata, extus carbonacea,

reticulatim rimosa, cortice pallide tabacino prædita, intus medulla ochraceo-albida, laxa, 1-1,5 mm. diam. v. 2-10 \times 1-2,5; peritheciis monostichis immersis sphæroideis, ostiolis longiusculis per rimas corticis, leviter conico-prominulis, 200-500 μ . diam.; ascis cylindraceis, apice rotundatis, longissime pedicellatis 76-82 \times 6-8 p. sp.; sporidiis monostichis ellipsoideis, inæquilateralibus, vulgo utrinque acutiusculis bi- vel uniguttulatis, fuliginéis, 12-15 \times 5-6; paraphysibus confluentibus hyalinis.

Hab. ad truncos putres, Mbopy et S. Antonio prope Asuncion Paraguay. — Affinis videtur *Xyl. cylindricæ*. — Var. *asperula* Starb. l. c. p. 20, fig. 28-29: stromatibus cylindraceis apice acutatis; stipite basin versus subdilato, patenti-villoso, 10-15 mm. longo, 1,5 mm. cr., parte fertili 15-20 mm. long., 2-3 mm. cr.; peritheciis majoribus, sphæroideis, ostiolis conico-prominentibus; ascis p. sp. 84-100 \times 8-9; sporidiis 15-18 \times 6-7. Ad truncum putrescentem inter Bambusas, Mbopy et Paraguari Paraguay. — Præcipue ostiolis a typo dignoscitur.

3. *Xylodactyla*.

21. *Xylaria Longiana* Rehm, Ann. Mycol. 1904, pag. 175, Ellis et 2115 Everh. F. Columb. n. 1417, sub *X. Hypoxylon*. — Stromatibus solitariis, plerumque gregarie in ligno denigrato nidulantibus, subcylindraceis, rectis, 3-3,5 cm. longis, 2-4 mm. latis, sensim in stipitem cylindraceum, versus basim dilatatum ibique interdum villo fusco vestitum, ca. 5 mm. long., 2-3 mm. latum abeuntibus, ad apicem usque 3 mm. longe acutum sterilibus, longitudinaliter rugosiusculis, fusco-nigris, glabris, peritheciis globosis 0,4 mm. diam., prominentibus exasperatis ibique ostiolis conicis obtusis perspicuis obtusis; ascis cylindraceis, longissimis, pr. sporif. ca. 70 \times 6-7, octosporis; sporidiis ellipsoideis, plus minusve acutiusculis, rectis vel subcurvatis, 1-cellularibus, fuscis 8-9 \times 4, monostichis; paraphysibus filiformibus.

Hab. ad lignum Quercus, Texas Amer. bor. (Long). — Exemplaria secundum formam stromatis et magnitudinem sporarum bene cum *Xylaria simili* Starb. conveniunt, sed Starbäck hanc speciem ad subgenus *Xylocoryne* ponit, dum nostra exemplaria apice sterili stromatis, non minus ostiolis peritheciorum valde prominentibus divergunt. Sporidia *X. cupressiformis* (Berk.) Sacc. multo majora sunt (Rehm l. c.).

22. *Xylaria deserticola* Speg. Myc. argent. ser. II, 1902, p. 70. — 2116

Stromatibus atris, 15-50 cm. long., 2-3 mm. cr., profunde terra infossis, dense ramoso-cæspitosis, ramis subgracilibus corrugatis ramulosis ac plus minusve anastomosantibus superficiem soli attingentibus atque clavuligeris, intus candidis; clavulis ad apicem ramulorum sæpius ternatis subcylindræis 5-10 mm. long., 4 mm. diam., varie compressis ac inter se confluentibus, rugulosis, nigris, in acumine albidis, intus subsuberosis albis; peritheciis globosis, dense constipatis immersis 0,50-0,75 mm. diam., atris; ascis cylindræis p. spor. 100-120 \times 6-10, ped. 60-80 \times 5-8, sursum subtruncatis, deorsum longe attenuato-pedicellatis, aparaphysatis vel paraphysibus vix ullis ornatis; sporidiis navicularibus sæpius monostichis, utrinque subacutiusculis, 16-18 \times 5-6, levibus non v. grosse 1-2-guttulatis, olivaceis.

Hab. ex fissuris soli exsurgens, e radicibus certe oriunda, in Sierra de los Himanes, S. Juan, in Argentina. — Species *X. fasciculatæ* Speg. et *X. digitatæ* (L.) Gr. certe affinis, habitu tamen longe recedens.

23. *Xylaria subtrachelina* P. Henn. Fungi S. Paulenses III, p. 207. 2117

— Stromatibus fuscoideis, stipitatis 1 $\frac{1}{2}$ -4 cm. long., 1-2 mm. crass., tuberculoso-rugosis, submoniliformibus, striatulis, atris, apice subacutis; stipite subtereti compresso pruinoso, vix tomentoso, 3-15 mm. longo, $\frac{1}{2}$ mm. crasso; peritheciis globosis immersis, ostioliis punctiformibus; ascis cylindræis, stipitatis, ca. 100-110, p. sp. 60-70 \times 4-5, paraphysibus copiosis filiformibus; sporidiis oblique monostichis, navicularibus, obtusis, atris 8-10 \times 3 $\frac{1}{2}$ -4 $\frac{1}{2}$.

Hab. ad truncos putres, Serra da Cantareira Brasiliæ. — *Xyl. trachelinæ* proxime affinis.

24. *Xylaria varians* Penz. et Sacc. in Malpighia 1902, pag. 225 et 2118

Icon. fung. Jav. t. XXII, f. 2. — Stromate cylindræo, modo simplici, modo bifido, aterrimo; stipite plus minus longo, villosulo, cylindræo; clava pariter cylindræa, sed paullo crassiore, 4-5 cm. longa, 4-5 mm. crassa, intus fistulosa, glabra, apice rotundata breviterque sed acute mucronata; peritheciis immersis, majusculis, usque 800-900 μ . diam., ostioliis conicis parum exstantibus; ascis cylindræis deorsum sensim tenuatis, 110-130 \times 5-6, octosporis; sporidiis monostichis, navicularibus, inæquilateris 10-13 \times 4-5, utrinque obtusulis, fuligineis, ut plurimum bi-guttulatis.

Hab. ad truncos, Tjibodas, in insula Java (FLEISCHER). — Spectat ad sect. *Xylodactyla* et forte accedit ad *X. dichotomam*.

25. *Xylaria consociata* Starb. Ascom. Regnell. exped. II, 1901, p. 17, 2119

fig. 24. — Stromatibus dense cæspitosis 5-7 basi pannosa conjunctis, raro solitariis, stipitibus simplicibus vel sæpe bipartitis, lineari-compressis, deorsum rugoso-hirtellis, sursum glabrescentibus 1-3 cm. long., 1-2 mm. lat., vix 300-500 μ . crassis, sensim in clavulas transeuntibus; clavulis simplicibus, sæpius vero bifurcatis, hinc vel utrinque medio canaliculatis, 1-2 cm. longis, 1-5 mm. latis, 0,5-1,5 mm. crassis; ramulis divergentibus, apiculatis vel truncatis; receptaculo levi, rimuloso, fusco, deinde peritheciis prominentibus tuberculato, apice sterili; peritheciis sphærico-mammiformibus, papillulatis 750 μ . diam.; ascis cylindræis, pedicellatis 55-65 \times 6-7; sporidiis monostichis elliptico-navicularibus, fuligineis 9-10 \times 4-5; paraphysibus indistinctis.

Hab. ad truncos Santa Anna da Chapada, Matto Grosso Brasilæ. 2120

26. *Xylaria æmulans* Starb. Ascom. Regnell. exped. II, 1901, p. 13,

fig. 16-18. — Stromatibus gregariis vel 2-pluribus connato-confluentibus, subsessilibus, basi spongioso-velutinis, simplicibus vel furcatis, compresso-cylindricis v. clavulatis v. difformibus, sæpius utrinque acutatis, ubique fertilibus v. apice acuminato sterilibus, rugosissimis, ex ostioliis asperulis, carbonaceo-coriaceis, fusco-atris, intus albidis, 10-20 mm. long. 1,5-4 mm. cr.; peritheciis sphæroideis, late conico-prominentibus, papillulatis, 400-600 μ . diam.; ascis cylindræis, longiuscule pedicellatis, apice obtusis, parte sporif. 55-57 \times 6-6,5, octosporis; sporidiis monostichis, ovoideis vel ellipsoideo-navicularibus, utrinque acutulis 6-7,5 \times 4-5; paraphysibus ramulosis hyalinis.

Hab. ad truncos mucidos dejectos, Cujabá, Matto Grosso Brasilæ. — *Xyl. multiplici*, *Xyl. Hypoxyl*o et *X. massulæ* affinis videtur.

27. *Xylaria amazonica* P. Henn. Fungi Amaz. II, p. 261, cum icone 2121

(Hedwigia 1904). — Stromatibus erectis, stipitatis 4-7 cm. longis, stipite subtereti, flexuoso, æquali, 3-5 cm. longo, 1-1 $\frac{1}{2}$ mm. crasso, atro-ferrugineo, pruinoso; clavula cylindræa obtusa vel rostrata $\frac{1}{2}$ -2 cm. longa, 3-4 mm. crassa, subrugulosa; peritheciis immersis, papillato-ostioliatis, subglobosis vel ovoideis, ca. 0,5-1 mm. diam.; ascis cylindræo-clavatis, 8-sporis, paraphysibus filiformibus, hyalinis; sporidiis oblonge navicularibus, utrinque obtusis vel subacutis, atris, 2-guttulatis 20-30 \times 7-9.

Hab. in ligno putri Cachoeiras des Marmellos Amazoniæ. — *X. trachelinæ* affinis, sed sporidia multo majora.

28. *Xylaria gracillima* (Mont.) Fr. — Syll. I, p. 343. — var. *rhizomor-* 2122
phoidea P. Henn. Fungi S. Paulenses III, p. 207 (Hedw. 1904).
 — Stromate filiformi, rhizomorphaideo, ramoso, nigro, usque 7 cm.
 longo; peritheciis liberis ovoideis, seriatis vel varie congregatis,
 sessilibus, $\frac{1}{2}$ –1 mm. cr. nigris rugulosis, papillatis; ascis 60–70 \approx
 4,5–5,5 p. sporif., longe stipitatis; sporidiis monostichis oblongis,
 inæquilateris, obtusis, atro-brunneis 8–12 \approx 3,5–4,5.

Hab. ad fructus *Lecythis*, Serra da Cantareira Brasilæ.

29. *Xylaria subgracillima* P. Henn. Fungi Amaz. II, p. 262, cum 2123
 icone. — Stromatibus gregariis, erectis, stipitato-clavatis, 1–2 cm.
 longis, stipite subflexuoso, compresso, sulcato, atro-fusco pruinoso,
 5–10 mm. longo, 0,7–0,9 mm. crasso; clavula spiciformi interrupte
 verrucosa, apice interdum acutiuscula 5–15 mm. longa, 1–1 $\frac{1}{2}$ mm.
 crassa; peritheciis subliberis plus minus aggregatis, ovoideis vel
 subglobosis, atris, pruinosis, papillato-ostiolatis, ca. 1 mm. diam.;
 ascis cylindræo-clavatis, obtuse rotundatis, 8-sporis, stipitatis,
 60–85 \approx 4, paraphysatis; sporidiis oblique monostichis, ellipsoideo-
 navicularibus, atris, 6–8 \approx 3–3 $\frac{1}{2}$.

Hab. ad truncos putres, Marmellos, Rio Madeira Amazoniæ. —

X. gracillimæ proxime affinis, sed sporidiis minoribus et peritheciis
 majoribus diversa.

30. *Xylaria juruensis* P. Henn. Fungi Amaz. II, p. 262, cum icone 2124
 (Hedwigia 1904). — Stromatibus subcæspitosis, erectis simplicibus
 v. furcatis, 1 $\frac{1}{2}$ –4 cm. longis, stipite subflexuoso, subtereti vel
 compresso, atro-tomentoso, 1–2 cm. longo, 1–2 mm. crasso; cla-
 vula interrupte peritheciigera 1–2 cm. longa; peritheciis sparsis
 vel aggregatis, subliberis, subovoideis v. hemisphæricis, atris sub-
 rugulosis, papillato-ostiolatis, 0,7–0,9 mm. diam.; ascis cylindræis,
 apice obtusis, plus minus stipitatis, 8-sporis, 100–120 \approx 4–6; spo-
 ridiis oblonge navicularibus, utrinque subobtusis, atro-castaneis,
 12–17 \approx 4–5.

Hab. ad stipites Palmarum Rio Juruá, Juruá-Miry Amazo-
 niæ. — Affinis *X. Apeibæ* sed sporidiis ceterisque notis diversa.

31. *Xylaria delicatula* Starb. Ascom. Regnell. exped. II, 1901, p. 18, 2125
 fig. 25–26. — Stromatibus primo conidiophoris, filiformibus, levi-
 bus vel basi sparse pilosis, nigris, circum circa basidiis hyalinis
 horizontalibus, conidia hyalina ellipsoidea 5–6 \approx 1–1,5 gerentibus,
 obtectis, 10–20 mm. alt., 100 μ . cr., deinde infra apicem incrassatis,
 peritheciigeris, clavula ovato-sphæroidea, ostiolis nigris asperulata
 1–2 mm. diam. vel 2–3 \approx 1 mm., corneo-carbonæa; peritheciis

sphæroideis monostichis, late conico-prominentibus, acutiuscule papillulatis 200-300 μ . diam.; ascis cylindræis, longiuscule pedicellatis, apice obtusis p. spor. 70-72 \times 9 octosporis; sporidiis monostichis, ellipsoideo-navicularibus, utrinque acutiusculis, vulgo guttulatis, fuligineis 12-12,5 \times 7-7,5; paraphysibus filiformibus, hyalinis, ascos superantibus.

Hab. ad folia putrida Cuyaba, Matto Grosso Brasilæ. — *Xyl. aristata* proxime affinis. Stipes a basi ad medium patenti-villoso nigricante, a medio ad capitulum albo-villoso, 6-15 mm. long., 200-300 μ . cr.

32. *Xylaria procera* Starb. Ascom. Regnell. exp. II, 1901, p. 24, f. 39. 2128

— Stromatibus e basi villosa-velutina subbulbiformi v. fere scleroticea solitariis v. deorsum subconfluentibus, simplicibus v. parvitis, basim versus cylindræis v. angulatis, ceterum complanatis, plicato-rugosis, sursum applanatis, levibus, *Celosia* instar margine arcuato-undulatis, inferius fusciscentibus, superne griseo-albescens, marginem versus lutescentibus, contextu coriaceo-corneo, 4 cm. longis, 1,5 cm. latis, 2-5 mm. crassis; conidiis (basidiis?) claviformibus, hyalinis, 10-15 \times 4-5.

Hab. ad truncos, Porto Alegre Rio Grande do Sul Brasilæ. — Status conidicus tantum notus, hinc species incerta.

33. *Xylaria ramuligera* Starb. Ascom. Regnell. exp. II, 1901, p. 25, 2127

fig. 40. — Stromatibus e basi subincrassata solitariis; stipite simplici, atro, velutino v. patenti-villoso, parte fertili ramulis curtis interdum subuncinatis, solitariis v. fasciculatim conjunctis v. irregulariter multifidis ornata; hymenio columellam obscuram colore griseo-albicante vestiente, 1-2 cm. long., 1-2 mm. cr., contextu coriaceo-fragili; conidiis fusoides-clavatis, hyalinis, 6-9 \times 2-4.

Hab. ad truncum humi jacentem putrem, Colon. Ijuhy Rio grande do Sul Brasilæ. — Status conidicus tantum notus, ideo species dubia.

34. *Xylaria confusa* Starb. Ascom. Regnell. exp. II, 1901, p. 24, 2128

fig. 38. — Stromatibus e basi scutellato-dilatata solitariis v. nonnullis divergentibus, filiformibus, interdum simplicibus plerumque monopodii modo ramuligeris, ramulis horizontalibus v. eleganter arcuatis acutissimis, interdum uncinatim acuminatis, usque 3 cm. long., 0,3 mm. lat., contextu ex hyphis agglutinatis formato; basidiis claviformibus conidiophoris ex hyphis exeuntibus, 25-35 \times 10-12; conidiis piriformibus, hyalinis, 12 \times 6.

Hab. in culmis *Bambusæ*, Colon. Ijuhy Rio Grande do Sul
Brasilis. — *Peritheciis* deficientibus, species omnino dubia,

4. *Thamnomycetes*.

35. *Xylaria trichopoda* Penz. et Sacc. in *Malpighia* 1901, p. 226, Ic. 2129
 fung. Jav. t. XXII, f. 4. — Sparsa v. subgregaria; stromate erecto, anguste cylindraceo, simplici vel parce dichotomo-ramoso, nigerrimo, 3-5 cm. longo, basi 1-1,5 mm. cr., sursum conspicue attenuato, acuto, glabro, basim versus strigoso-hispido, filamentis aterrimis, 1 mm. long., ex hyphis conglutinatis compositis; peritheciis liberis, globosis, inæqualiter per totam fere stromatis longitudinem insertis, 0,7-1 mm. diam., intermixtis minoribus, minute sed distincte papillatis, carbonaceis, nigris; ascis cylindraceis, apice obtusulis, octosporis, longe stipitatis 150-160 \times 5; stipite partem sporiferam subæquante; sporidiis oblique monostichis, fusoideonavicularibus, utrinque obtusulis, 12-13,5 \times 5, fuliginis.

Hab. ad corticem arborum, Tijbodas, in insula Java (M. FLEISCHER). — Forte affinis *X. hispidissimæ*, sed certe diversa.

36. *Xylaria rostrata* (Mont.) Sacc. — Syll. I p. 344. — var. *tenuior* 2130
 P. Henn. F. Amaz. II, p. 263 (Hedw. 1904). — Stromatibus multo tenuioribus, vulgo tantum basi ramosis, ca. 20 cm. long., ramis vix 1 mm. cr.; peritheciis minutis breviter rostratis, raro erostratis; sporidiis oblongo-navicularibus, 6-8 \times 3-3,5.

Hab. ad truncos putres, typus in Rio Juruá, Juruá-Miry et var. in Rio Negro, Manaos *Brasilis*. — Observante cl. Hennings l. c., cui assentior, genus *Thamnomycetes* Ehrenb. cum typica specie *Th. Chamissonis* et *Th. camerunensis* est servandum. *Thamn. rostratus* ob perithecia rostellata et habitum scopiformem ut *Thamnomycetis* sectio propria (*Scopimycetes* P. Hennings) considerari potest. Revisio critica generis vere exoptata.

37. *Xylaria camerunensis* P. Henn. in Engl. Bot. Jahrb. 1901, p. 41. 2131
 Ita vocandus *Thamnomycetes Chamissonis* Ehr. var. *camerunensis* P. Henn. — Syll. XI, p. 285 sub *Xylaria*.

STILBOHYPOXYLON P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 16 (Etym. *Stilbum* et *Hypoxyton*). — Stroma subcarbonaceum, atrum, hypoxylodeum, subglobosum. Perithecia pauca, immersa, membranacea, pallida. Asci cylindracei immaturi. Stroma conidiophorum liberum v. stromate ascophoro insertum, subulatum

apice mucoso-capitatum. Conidia acrogena, subglobosa, fuscidula. Asci ignoti, ergo genus, quoad locum systematicum, dubium.

1. **Stilbohypoxyton Mölleri** P. Henn. l. c. — Lignicola; stromatibus 2132 subcarbonaceo-atris, erumpenti-superficialibus, sparsis v. gregariis, subgloboso-pulvinatis, ruguloso-verrucosis, ca. 1 mm. diam., interdum confluentibus; peritheciis subglobosis, membranaceis pallidis; ascis cylindraceutis subclavatis v. subfusoides, basi attenuatis; paraphysibus copiosis filiformibus, hyalinis; sporidiis immaturis. — Stromatibus conidiophoris singularibus liberis v. stromatibus ascophoris lateraliter v. apice insertis, subulatis, atris, ex hyphis fuscis compositis, 0,8-1,2 mm. longis, basi incrassatis, 300-400 μ . cr., medio ca. 120 μ . cr., apice subclavatis 150-130 ab hyphis subhyalinis parallelis circumdatis; conidiis acrogenis subellipsoideis $3 \times 2,5$ fuscidulis, levibus.

Hab. in truncis emortuis, S. Catharina Brasilæ austr.

MÖLLEROCLAVUS P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 15 (Etym. a cl. bot. *Möller* et *clavus*). — Stroma conidiophorum subcarnosum, elongato-fusifforme, lateraliter ramosum, ramuli breves apice capitati, capitulum ex hyphis radiantibus fuscidulis compositum. Conidia acrogena, ellipsoidea, continua. Stroma ascophorum subcarnosum, atro-corticatum, subclavatum. Perithecia immersa, subglobosa, immatura; hinc genus, quoad locum systematicum, dubium, sed certe *Xylariæ* cognatum.

1. **Mölleroclavus Penicillioptis** P. Henn. Fungi blumenavienses II, in 2133 Hedw. 1902, p. 15. — Lignicola; stromatibus conidiophoris subcarnosis, subulatis usque ad 6 cm. altis, stipitatis; stipite subtereti, atro-pruinoso v. tomentosulo, usque ad 2 cm. longo, 2 mm. crasso, clavulis pallidis, irregulare sulcatis, lateraliter circumdato-ramosis, ca. 5 mm. cr., apice attenuatis, ramulis brevibus, aggregatis vel sparsis, ca. 1-2 mm. longis, 0,5 mm. cr., pallidis, apice pulvinato-capitatis, capitulis atris 3,5-4 mm. latis, ex hyphis radiantibus, septatis, fuscidulis, apice 1-sterigmaticis breve subulatis; conidiis subfusoides-ellipsoideis, fuscidulis, $6-8 \times 3,5-4$; stromatibus ascophoris subcarnosis, fusoides-clavatis, sigmoideis usque ad 11 cm. longis, atro-corticatis, intus pallidis, cavis; stipite subtereti, usque ad 8 mm. cr., pruinoso v. ferrugineo-tomentoso; clavula apice attenuata acutiuscula v. obtusa, medio usque ad 25 mm. diam., compressa, punctato-verrucosa; peritheciis immersis, sparsis, subglobosis, atris, immaturis.

Hab. ad ligna putrescentia, dejecta pr. Blumenau, St. Catharina Brasilæ (MÖLLER).

ANTHOSTOMA Nits. — Syll. I p. 293, IX p. 514, XI p. 283, XIV p. 503, XVI p. 441.

1. **Anthostoma gallicum** Sacc. et Flag. in Atti Congr. bot. di Palermo 2134 1902, p. 50. — Peritheciis modo in acervulos parvos approximatis, modo subsolitariis, ligno infuscato v. atrato immersis, globosis, nigris, 800-900 μ . diam., interdum, matrice dilabente, subliberatis, membranaceo-carbonaceis; ostiolo emergente, rotundato, crassiusculo; ascis cylindraceis, apice rotundatis, brevissime crasseque stipitatis, 140-160 \times 16, octosporis, filiformi-paraphysatis; sporidiis oblique vel subrecte monostichis, ellipsoideis, 30-36 \times 14-15, continuis, atro-fuligineis, eguttulatis.

Hab. in ligno carioso quercino, Rigny s. Arroux Galliæ. — Affine *A. veneto* sed omnibus partibus majus.

Sect. 4. Hyalodidymæ.

SPHÆRELLA Ces. et De Not. *) — Syll. I p. 476, IX p. 611, XI p. 295, XIV p. 525, XVI p. 468.

1. **Sphærella Fendleri** (Tr. et Earle) Sacc. et Syd. — Syll. XVI, 2135 p. 1133, *Mycosphærella Fendleri* Tracy et Earle, Plantæ Baker. I, p. 33. — Peritheciis minutis, sparsis, solitariis suberumpentibus; ascis oblongis, breve stipitatis 40-45 \times 10-12; paraphysibus nullis; sporidiis fusiformibus, obtusis, 1-septatis, hyalinis, leviter constrictis 15-17 \times 3,5-4.

Hab. in caulibus Thalictri Fendleri, Bob Creek, Colorado Amer. bor.

2. **Sphærella delphiniicola** (Earle) Syd. et Sacc. — Syll. XVI, p. 1133, 2136 *Mycosphærella delphiniicola* Earle, Plantæ Bakerianæ, fasc. II, fung. p. 19. — Maculis irregularibus nigrescentibus; peritheciis gregaris, fere sphericis, nigris, 100-150 μ . diam., in mycelio irregulariter ramoso insidentibus ostioli inconspicuis; ascis aparaphysatis, clavatis, fasciculatis, 40-60 \times 6-8; sporidiis distichis, fere ovalibus, utrinque acutis, 1-septatis, non constrictis, 12 \times 3, hyalinis.

*) Quoad nomen *Sphærella* loco *Mycosphærellæ*, cfr. Syll. XVI, p. 468, nota.

Hab. in caulibus emortuis Delphinii, Pagosa Peak, South Colorado, Amer. bor.

3. **Sphærella Actææ** E. Rostr. Norske Ascom. 1904, p. 21 (Vidensk. Skrift.) — Peritheciis dense gregariis, minutis, sphæroideis; ascis clavatis, 38-40 \times 9; sporidiis distichis, subnavicularibus, 15-16 \times 5.

Hab. in caulibus siccis Actææ spicata in Norvegia.

4. **Sphærella Pericopsidis** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Pericopsidis* P. Henn. Fungi S. Paulenses I, in Hedw. 1902, p. 109. — Maculis fuscis, effusis; peritheciis hypophyllis, erumpenti-superficialibus, hemisphæricis, membranaceis, fuscis, minutis, 50-70 μ . diam., apice pertusis; ascis basi fasciculatis, clavatis, apice rotundatis, rectis vel curvulis, octosporis, aparaphysatis 25-32 \times 4-5; sporidiis subdistichis, ellipsoideis vel clavatis, medio 1-septatis, haud constrictis, 6-8 \times 3,5 hyalinis.

Hab. in foliis Pericopsidis Monianæ in horto botanico, S. Paulo Brasilæ.

5. **Sphærella elatior** Sacc. et Sp. — Syll. fung. I, pag. 495, Fungi ital. t. 386. — var. *apula* Sacc. et D. Sacc. — A typo distinguitur maculis foliorum distinctis, albicantibus, anguste ochraceo-marginatis, amplis irregularibus; peritheciis sæpius gregariis; cetera eadem.

Hab. in foliis subvivis Magnoliæ grandifloræ, Foggia Apuliæ (Prof. STRAGAPEDÉ).

6. **Sphærella Certeliana** Sacc. Ann. Mycol. 1904, p. 528. — Peritheciis hinc inde in greges minulos densiuscule approximatis, punctiformibus, epidermide velatis, nigris, poro pertusis, 80 μ . diam., contextu minute parenchymatico; ascis anguste tereti-clavulatis, breviter noduloso-stipitatis, 32-35 \times 6, aparaphysatis, octosporis; sporidiis oblique monostichis v. distichis, anguste cylindræo-clavulatis, 7-9 \times 1,6-2, medio septatis vix constrictis, eguttulatis, hyalinis.

Hab. in caulibus emortuis Coronillæ montanæ pr. Sondershausen Thuringiæ. — Ab affini *Sph. leptasca* Auersw. differt peritheciis hinc inde confertis, sporidiis brevioribus, matrice alia etc.

7. **Sphærella mimosicola** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella mimosicola* P. Henn. Fungi Amaz. IV, in Hedw. XLIV, p. 62. — Maculis fuscis gregariis, rotundatis, minutis, sæpe confluentibus; peritheciis hypophyllis sparsis vel gregariis, primo immersis, dein erumpenti-subsuperficialibus, subglobois, atris, membranaceis ca. 80-120 μ .; ascis fasciculatis, aparaphysatis, clavatis, apice

obtusis subincrassatis, 8-sporis, $30-42 \approx 10-14 \mu$.; sporidiis subdistichis, oblongis vel subclavatis, rectis v. curvulis, medio 1-septatis haud constrictis, hyalinis $12-18 \approx 3\frac{1}{2}-4$.

Hab. in foliis *Mimosæ asperatæ*, Rio Juruá Brasilæ.

8. **Sphærella Tamarindi** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella* 2142

Tamarindi P. Henn. in Notizbl. des Königl. bot. Gartens u. Museum zu Berlin n. 30, 1903, pag. 240. — Maculis fuscidulis explanatis; peritheciis epiphyllis sparsis, immersis dein erumpentibus subglobosis, minutis, membranaceis, atris, poro pertusis, $60-90 \mu$. diametr.; ascis fasciculatis, aparaphysatis, clavatis, vertice rotundatis, crasse tunicatis, 8-sporis, $36-43 \approx 13-16$; sporidiis subdistichis oblonge ellipsoideis v. ovoideis, utrinque rotundatis, sæpe 2-guttulatis, hyalinis, deinde medio 1-septatis, $8-13 \approx 3-4\frac{1}{2}$.

Hab. in foliis *Tamarindi indicæ*, Dar-es-Salâm in Africa orient. germ. (Dr. STUHLMANN).

9. **Sphærella dryadicola** Rostrup, Fungi in Botany of the Faeröes 2143

1901, part. I, p. 310. — Peritheciis epiphyllis, subgregariis, atris; ascis ovoideo-oblongis $30-40 \approx 7-9$; sporidiis cylindræis, $10-14 \approx 3-4$ hyalinis, initio guttulatis, dein 1-septatis.

Hab. in foliis *Dryadis octopetalæ*, Fuglø in insulis Faeröes Daniæ.

10. **Sphærella rubicola** Mc. Alp. Proc. Linn. Soc. New South Wales 2144

1904, p. 126. — Maculis argenteo-griseis; peritheciis depresso-globosis, vix erumpentibus, sparsis, $140-190$, poro latiusculo papillato pertusis; contextu membranaceo-atro-brunneo; ascis obclavatis, breve stipitatis, apice rotundatis, aparaphysatis, octosporis, $63-70 \approx 18-21$; sporidiis vulgo biseriatis, cylindræo-oblongis, hyalinis, intus minute granulosi, medio 1-septatis, non constrictis, utrinque rotundatis, $21 \approx 7$, cellula superiori paullo latiori.

Hab. in ramis adhuc viventibus *Rubi parvifolii* Arthur's Creek Vict. Australiæ.

11. **Sphærella Eugeniæ** (Rehm) Sacc. et D. Sacc. *Mycosphærella* *Eugenie* 2145

Rehm, Hedw. XLIV, (1905). — Maculis exsiccatis foliorum suborbicularibus, fuscidulis, fusco-purpureo marginatis, $3-4$ mm. lat.; peritheciis gregarie innatis, in hypophyllo demum prominentibus, globosis, nigris, poro pertusis, glabris, $60-80 \mu$. diam.; ascis elongato-ovoides, apice incrassatis $30-35 \approx 9$, octosporis; sporidiis fusiformibus, medio septatis, hyalinis $15-17 \approx 2-2.5$, tristichis; paraphysibus nullis.

Hab. in foliis *Eugeniæ Michellii*, Blumenau Brasilæ.

12. *Sphærella Cuboniana* D. Sacc. sp. n. — Peritheciis gregariis, sub- 2146
cutaneo-erumpentibus, globulosis, demum concaviusculis, nigris,
rugulosis, 400-500 μ . diam., ostiolo punctiformi; ascis crasse ob-
clavatis v. subfusoides, breviter crasse stipitatis, apice obtusule
tenuatis, 50-80 \times 15-24, aparaphysatis, octosporis; sporidiis in asci
parte crassiore tristichis, oblongo-clavulatis, 20 \times 7-8, e hyalino
luteolis, utrinque obtusiusculis, 1-septatis, leniter constrictis, loculo
superiore paullo crassiore.
Hab. in ramis languidis junioribus *Vitis vinifera* in horto
Musei agrarii Romæ, Jan. 1904. — Instituti phytopathologici ro-
mani eximio Directori Jos. CUBONI dicata species.
13. *Sphærella Goodeniæ* F. Tassi in Bull. Lab. Ort. Bot. Siena 1902, 2147
v. pag. 108. — Peritheciis sparsis vel laxe gregariis, epidermide
tenuiter velatis, minutis, nitidulis, nigris, globoso-lenticularibus,
80-100 μ . diam., membranaceis, ostiolo minuto perforatis, hyphu-
lis gracilibus septatis, fusco-olivaceis, sub epidermide repentibus,
præditis; contextu dense fuligineo; ascis copiosis, stipatis, inæ-
quilateralibus, uno latere recto, altero ventricosos, crasse tunicatis,
subsessilibus 8-sporis, 30-32 \times 12-14; sporidiis irregulariter con-
fertis, raro subdistichis, ellipsoideis, medio 1-septatis, eguttatis,
7-8 \times 2-3 hyalinis.
Hab. in ramulis emortuis *Goodeniæ stelligeræ*, Sydney
Australiæ.
14. *Sphærella Parnassiæ* Rostr. Islands Svampe in Bot. Tidsskrift 2148
1903, vol. 25, p. 302. — Peritheciis laxe gregariis, sphæroideis,
minutissimis 60-70 μ . latis; ascis fasciculatis, cylindraceo-clavatis,
30-33 \times 5-6; sporidiis oblique distichis, oblongo-clavatis, prope
medium septatis, ad septum vix constrictis, hyalinis, 10-12 \times 3-4.
Hab. in caulibus et sepalis morientibus *Parnassiæ palustris*
in Islandia.
15. *Sphærella Glycosmæ* (Tracy et Earle) Sacc. et D. Sacc. *Myco-* 2149
sphærella Glycosmæ Tracy et Earle, Plantæ Bakerianæ I p. 33. —
Maculis nullis; peritheciis dense sparsis, in latis areis, nigris, sphæ-
ricis, 100 μ . diam.; ascis sessilibus, late obovatis, obtusis, aparaphy-
satis, octosporis, 50 \times 10; sporidiis anguste ovatis, 1-septatis, hya-
linis, guttulatis, 16 \times 5.
Hab. in caulibus emortuis *Glycosmæ occidentalis*, South
Colorado Amer. bor.
16. *Sphærella Cassythæ* Mc. Alp. in Proc. Linn. Soc. of N. S. Wales 2150
1903, p. 102. — Peritheciis minutis, punctiformibus, sparsis, ni-

gris, erumpentibus, membranaceis, depresso-globosis, 70-90 μ . diam.; ascis clavatis v. oblongo-clavatis, plus minusve pedicellatis, octosporis 32-37 \approx 9-12; sporidiis distichis, hyalinis, cylindraceis, utrinque subconicis, 1-septatis, ad septum non constrictis, guttulatis 9 \approx 3.

Hab. in caulibus et in ramulis *Cassythæ glabellæ* in Australia.

17. **Sphærella Persooniæ** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella* 2151

Persooniæ P. Henn. in Hedw. 1903, p. (81). — Maculis fuscidulis, rotundatis vel irregularibus; peritheciis amphigenis epidermide erumpentibus, aggregatis, subgloboso-depressis, atris, vertice subpapillatis, porosis ca. 80-120 μ . diam.; ascis fasciculatis, clavatis, apice rotundato-tunicatis, 20-30 \approx 8-10, octosporis, aparaphysatis; sporidiis subclavatis, apice obtusis, medio 1-septatis, haud constrictis, hyalinis 8-11 \approx 2-2,5.

Hab. in foliis *Persooniæ salicinæ*, in mt. Victoria, N. S. Wales Australiæ (PRITZEL).

18. **Sphærella Silenis** (v. Höhn.) Sacc. et D. Sacc. *Mycosphærella* 2152

Silenis v. Höhn. in Ann. Mycol. I (1903) p. 523. — Maculicola, epi- et hypophylla; maculis minutis, $\frac{1}{2}$ -1 mm. diam., numerosis, sparsis, ochraceis, late atro-purpureo-marginatis; peritheciis paucis, (usque 12), nigris, minutis, 48-80 μ . latis, sphæroideis, breve papillatis; tunica brunnea, membranacea, e cellulis minutis, 4-8 μ . latis formata; ascis clavatis 8-sporis, aparaphysatis 32-55 \approx 7-12; sporidiis distichis, hyalinis, didymis, oblongis, in medio non v. parum constrictis, plerumque 14 \approx 4, sed etiam longioribus, bacilliformibus, 20-28 \approx 3 $\frac{1}{2}$ -5 $\frac{1}{2}$, utrinque rotundatis.

Hab. in foliis adhuc vivis et in calycibus *Silenis inflatæ* prope Tumpen in valle Oetzthal Tirolæ.

19. **Sphærella Cerei** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Cerei* 2153

P. Henn. in Hedw. 1904, pag. 85. — Maculis cinereo-fuscidulis explanatis, irregularibus; peritheciis sparsis vel gregariis, innato superficialibus, globulosis, submembranaceo-atris, basi hyphis fuscidulis, septatis 2,5 \approx 3-5 μ . crassis circumdati, 60-70 μ . diam.; ascis clavatis obtusis, octosporis, aparaphysatis, 30-40 \approx 12-15; sporidiis subdistichis vel subconglobatis, oblonge clavatis vel subfusoides, obtusis, medio 1-septatis, constrictis, hyalinis 12-15 \approx 2,5-3.

Hab. in phyllodiis *Cerei macrogoni*, Cabo Frio, Rio de Janeiro Brasilæ (E. ULB).

20. *Sphærella Hertiae* Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. 2154
de France t. XVIII, 1902, fasc. I. — Maculis nullis; peritheciis
sparsis, amphigenis, nigris, initio subepidermicis dein liberis, glo-
bulosis 100 μ . diam., poro pertusis; contextu celluloso viridi-fuli-
gineo; ascis basi incrassatis, breve stipitatis, summo attenuato-
obtusis, octosporis, 2-3-seriatis; paraphysibus nullis; sporidiis ovo-
ideo-elongatis, 1-septatis, ad septa paullo constrictis, pluriguttu-
latis, hyalinis.

Hab. in foliis emortuis *Hertiae* cheirifoliae, Sgag Algeriæ.

21. *Sphærella Columbariæ* (Feltg.) Sacc. et Syd. — Syll. XVI, p. 1133 2155
(nomen) *Mycosphærella Columbariæ* Feltg. Vorst. Pilz. Luxemb.
Nachtr. II, p. 182. — Peritheciis gregariis, subcutaneis, nigris;
ascis cylindricis, basi stipitiformi attenuatis 40 \times 5; sporidiis el-
lipsoideis vel ovato-ellipsoideis, bi-cellularibus, 7-8 \times 2,5.

Hab. in caule *Scabiosæ Columbariæ*, Luxemburg. — *Sphær.*
leptoasce Auersw. proxime affinis.

22. *Sphærella Coffeæ* (Noack) Sacc. *Mycosphærella Coffeæ* Noack Pflanz. 2156
zenkr. 1901, p. 200, tab. IV (absque diagnosi). — Maculis brunneis
subrotundis, margine obscuriore subelevato; peritheciis gregariis,
sæpius epiphyllis punctiformibus, atris, globulosis circ. 50 μ . diam.,
poro pertusis; ascis tereti-oblongis, breve crasse stipitatis, 22-
25 \times 6-7, apice rotundatis, aparaphysatis, octosporis; sporidiis
irregulariter distichis, fusoideo-oblongis, constricto-1-septatis, 7-
11 \times 2-3, hyalinis, minute 4-6-guttulatis.

Hab. in foliis *Coffeæ arabicæ* in Brasilia, socia plerumque
Cercospora coffeicola.

23. *Sphærella Puttemansii* (P. Henn.) Sacc. et D. Sacc. *Mycosphærella* 2157
Puttemansii P. Henn. in Hedw. 1902, p. 301. — Maculis rotun-
datis 1,5-2 mm. diam., fuscidulis dein exaridis pallescentibus;
peritheciis gregariis erumpentibus, subglobosis, atro-fuscis, dein
collabentibus, membranaceo-cellulosis; ascis fasciculatis, ovoideis,
apice rotundatis, crasse tunicatis 8-sporis, 25-45 \times 16-20; sporidiis
clavatis v. subfusoides, obtusis, medio 1-septatis, haud constrictis,
hyalinis, 15-21 \times 5-7.

Hab. in folis vivis *Plantaginis*, in horto botanice, S. Paulo
Brasiliæ.

24. *Sphærella gaveensis* (P. Henn.) Sacc. et D. Sacc. *Mycosphærella* 2158
gaveensis P. Henn. in Hedw. 1904, p. 84. — Maculis rotundatis,
gregariis, atro-fuscis, ca. 1 mm. diam.; peritheciis innato-super-
ficialibus, gregariis, membranaceis, hemisphæricis, atro-fuscis, ca.

80-100 μ . diam.; ascis oblonge ovoideis vel clavatis, apice rotundatis, tunicatis, octosporis, $35-40 \times 18-23$; sporidiis subdistichis vel conglobatis, oblonge clavatis, medio 1-septatis vix constrictis, hyalinis, $18-22 \times 6-7$.

Hab. in foliis Plantaginis, Gavea, pr. Rio de Janeiro Brasiliae (E. ULE).

25. **Sphærella implexicola** R. Maire in Bull. Soc. bot. de France 1901, 2159 t. I, p. 198, tab. 13, fig. 3. — Maculis fusco-atris, dein pallescentibus, amphigenis; peritheciis minutis, amphigenis, sparsis, immersis; ascis cylindraceo-oblongis v. clavatis, interdum curvulis, basi attenuatis, haud vel parum stipitatis $35-40 \times 9-10$; sporidiis distichis, hyalinis, fusoides vel leguminiformibus $10-11 \times 2,5$ haud procul medio septatis, non constrictis, loculis guttulatis, sæpius inæqualibus; paraphysibus nullis.

Hab. in foliis languidis Lonicerae implexæ, Bonifacio Corsicae.

26. **Sphærella Pentastemonis** (T. et E.) Sacc. et Syd. — Syll. XVI, 2160 p. 1133 (nomen) *Mycosphærella Pentastemonis* Tracy et Earle in Green Pl. Baker. II, p. 19. — Peritheciis densiuscule aggregatis in areis irregularibus nigrescentibus, nigris, fere sphaericis, $150-200 \mu$. diam. hyphis septatis, brunneis $10-12 \mu$. crassis circumdatis; ascis aparaphysatis, fasciculatis, clavatis, 60×12 ; sporidiis irregulariter distichis, ovatis, sæpe guttulatis, 1-septatis, constrictis, 25×6 , hyalinis.

Hab. in foliis caulibusque emortuis Pentastemonis spec., Pagosa Peak, South Colorado Amer. bor.

27. **Sphærella Passifloræ** Rehm — Syll. XVI, pag. 470. — var. 2161 **Bignoniæ** Rehm, Hedw. XLIV (1905). — Peritheciis $70-90 \mu$. diam.; ascis piriformibus $25-30 \times 10-12$; sporidiis oblongis, medio septatis, utrinque rotundatis $9-10 \times 3$.

Hab. in foliis Bignoniæ, Sao Francisco Brasiliæ (ULE).

28. **Sphærella lineata** (Clements) Sacc. et D. Sacc. *Mycosphærium lineatum* Clem. in Bull. of the Torr. Bot. Cl. 1903, p. 84. — Peritheciis gregariis, in lineis longis vel maculis elongatis, elevatis, nigris dense dispositis, innatis, epidermide tectis, deinde suberumpentibus, conico-sphaericis, vix vel non papillatis, glabris, subiculo sparso brunneo insidentibus, minutis, 100μ . diam.; ascis octosporis, clavatis, brevibus, aparaphysatis, jodo non caerulescentibus $60 \times 12-15$; sporidiis irregulariter dispositis, ovato-oblongatis, uni-septatis, hyalinis, levibus, intus minute granulosi, $16 \times 6-8$.

Hab. ad caules emortuos *Pedicularis procerae*, Dark Cañon Amer. bor. — Est quasi *Sph. trichophila* Karst. sed nuda; *Sph. Tassianæ* DNet. quoque affinis.

29. *Sphærella Digitalis* T. Ferraris in *Malpighia* 1902, pag. 451. 2163
— Peritheciis minutis 150 μ . diam., dense gregariis, nigris, globosis, poro pertusis; ascis brevibus, basi brevissime stipitatis, 60 \times 20-21; sporidiis subdistichis vel stipatis, hyalinis, medio uniseptatis, non constrictis, inferne attenuatis, 18-19 \times 5-6.

Hab. in caulibus siccis *Digitalis*, luteæ, Courmayeur Italiae bor.

30. *Sphærella Glechomæ* Sacc. et Flag. sp. nov. — Peritheciis hinc inde dense gregariis, amphigenis, sed sæpius epiphyllis, punctiformibus, 80-100 μ . diam., nigris, vix pertusis, epidermide diaphana velatis, leniter prominulis; ascis elongato-oblongis, apice attenuatis, aparaphysatis, octosporis, 30-40 \times 7-8; sporidiis distichis, breve fusoides, 10-12 \times 3, apice obtusulis, 1-septatis, vix constrictis hyalinis. 2164

Hab. in foliis putrescentibus totis decoloratis *Glechomæ hederaceæ*, Rigny sur Arroux (Saone et Loire) Galliae. — Verisimiliter status ascophorus *Phyllostictæ Glechomæ*. Prima ætate forte maculicola.

31. *Sphærella subcongregata* Ell. et Ev. North Am. *Pyrenomyc.* p. 290. 2165
— Peritheciis gregariis v. interdum 3-6 congestis, erumpenti-superficialibus, ovoideo-globosis, 250 μ . diam., ostiolo acuto; ascis oblongis, 40-45 \times 12-15, aparaphysatis; sporidiis biserialis, oblongo-cylindraceis, v. clavato-oblongis, subhyalinis, dilutissime flavidis, 18-23 \times 3-4 vel (in forma subclavata) usque 4-5 μ . cr.

Hab. in pedunculis *Erigerontis salsuginosi* Mt. Paddo, Washington Amer. bor.

32. *Sphærella Sabinæ* (Feltg.) Sacc. et D. Sacc. *Mycosphærella* Feltg. 2166
Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 258. — Peritheciis gregariis vel subsparsis, erumpenti-subsuperficialibus, globoso-depressis, nigris, 70-150 μ . diam., imperspicue papillatis; ascis cylindraceis vel tereti-clavatis, aparaphysatis 40-60 \times 4-5, 4-8-sporis; sporidiis submonostichis tereti-fusoides, utrinque rotundatis, rectis, curvulisve, medio constricto-1-septatis, ex hyalino flaveolis, 13,5 \times 2-2,5.

Hab. in ramulis *Juniperi Sabinæ*, Luxemburg.

33. *Sphærella Ulmi* (Kleb.) Sacc. et D. Sacc. *Mycosphærella Ulmi* Kleb. 2167
in Zeitschr. f. Pflanzenkrank. 1902, XII, pag. 257. — Peritheciis

solitariis subglobosis, circ. 100 μ . diam.; ascis elongato-clavatis 90 \approx 10 octosporis; sporidiis fusoides, rectis curvulisve 28 \approx 2,5-4, medio 1-septatis, loculo altero subinde paullo crassiore.

Hab. in foliis languidis vel emortuis Ulmi montanæ var. pendulæ prope Hamburg Germaniæ sept.

34. **Sphærella salicina** Ell. et Ev. in Journ. of Mycol. 1903, p. 166. 2168

— Peritheciis sparsis vel 3-5-congestis, ovatis, 250-350 μ . diam., immersis, dein superne erumpentibus; ascis oblongis, p. spor. 40-45 \approx 8-10; sporidiis distichis, oblongo-fusoides, hyalinis vel sublu-teolis, 1-septatis, ad septum subconstrictis, 14-18 \approx 4-6.

Hab. in ramis juvenilibus Salicis cordatæ, Rocks Co. Can-sas Amer. bor.

35. **Sphærella Grossulariæ** (Fr.) Auersw. — Syll I, p. 486. — var. 2169

salicella Sacc. et Scalia Harrim. Alaska Exped. Crypt. pag. 32, pl. IV, fig. 6. — Peritheciis sparsim gregariis, punctiformibus, 100-130 μ . diam.; ascis tereti-oblongis, 52-70 \approx 13-15,5 μ ., brevissime stipitatis, octosporis; sporidiis polystichis, fusideo-bacillari-bus, rectis, 32-34 \approx 1,5-2,5, uniseptatis, non constrictis, hyalinis.

Hab. in foliis Salicis spec., socio *Phytismate salicino*, Kadiak Alaska (TRELEASE).

36. **Sphærella Flageoletiana** Sacc. et Trav. Atti Congr. bot. Palermo 2170

1902, p. 51. — Peritheciis epiphyllis, non maculicolis, hinc inde dense et late gregariis, punctiformibus, fere microscopicis, globu-losis, immersis 65-80 μ . diam., tenuiter membranaceis, ostiolo ob-tuso vix prominulo; ascis fasciculatis, oblongo-fusoides, apice obtusis, apapophysatis, octosporis 45-50 \approx 7; sporidiis distichis cy-lindræo-fusiformibus, plerumque curvatis, utrinque obtuse tenua-tis, medio 1-septatis, non constrictis 22-26 \approx 3-3,5, intus nubilosis, hyalinis.

Hab. in foliis arescentibus Fagi silvaticæ, Rigny sur Ar-roux Galliæ. — Forma et longitudine sporidiorum mox distincta species.

37. **Sphærella cæspitosa** Ell. et Ev. in Journ. of Mycol. 1903, p. 166. 2171

— Hypophylla; peritheciis 65-75 μ . diam. subconfluenti-cæspitosis, 3-5 vel ultra congestis, cæspitulos 1-3 mm. diam. efformantibus, erumpentibus; ascis subcylindricis 35-40 \approx 5-6; sporidiis subdi-stichis, oblongo-fusoides, 1-septatis, non constrictis, 8-10 \approx 2,5-3 hyalinis.

Hab. in foliis Quercus virginianæ, Meridan, Texas Amer. borealis.

38. *Sphærella garganica* Sacc., Ann. Mycol. 1903, p. 3, t. III, fig. II. 2172

— Peritheciis hypophyllis, hinc inde dense gregariis, punctiformibus, leviter prominulis, globulosis, 150-180 μ . diam., contextu duriusculo, parvi-celluloso, atro-fuligineo, poro minuto vix papillato, dein lacerato; ascis rosulatis, crasse clavatis, subsessilibus, apice obtuse rotundatis, 35-40 \times 11-14, octosporis, aparaphysatis; sporidiis subtristichis, oblongis, sursum paullo crassioribus, utrinque obtusulis, 11-12 \times 3-3,5, rarius usque 4 μ . cr., hyalinis, eguttulatis.

Hab. in foliis *Smilacis asperæ* var. *mauritanicæ*, pr. S. Nicandro Garganico (Foggia), Majo 1893 (U. MARTELLI).

39. *Sphærella smilacina* Ell. et Ev. Ita nuncupanda *Sphærella subcongregata* in Syll. IX, p. 651, quæ (ut ex errore transpositionis habetur) non est *Sph. subcongregata* Ell. et Ev. Cfr. supra, n. 31.40. *Sphærella Yuccæ* Ell. et Ev. in Journ. of Mycol. 1902, p. 67. 2173

— Peritheciis æqualiter sparsis, subcuticularibus, suberumpentibus plus minusve collapsis 110-120 μ . diam.; ascis clavato-cylindraceis, breve stipitatis 45-55 \times 10-12; sporidiis distichis, oblongo-fusoideis 12-15 \times 4-5, uniseptatis paullulo constrictis.

Hab. in foliis *Yuccæ filamentosæ*, Alabama Amer.

41. *Sphærella Schœnoprasi* Auersw. — Syll. fung. I, pag. 522. — 2174

var. *Romuleæ* Sacc. Ann. Mycol. 1904, p. 3. — Paullo minor; peritheciis conoideis, prominulis, 160-180 μ . diam.; ascis obclavatis, 50-60 \times 14-15 μ .; sporidiis distichis v. oblique monostichis, breve fusoideis, utrinque obtusulis, 18-20 \times 5-5,5 μ . ad septum non constrictis.

Hab. in foliis morientibus *Romuleæ Bulbocodii*, in agro Romano (Doct. A. BÉGUINOT).

42. *Sphærella hypostomatica* (v. Höhn) Sacc. et D. Sacc. *Mycosphae-* 2175

rella hypostomatica v. Höhn Fragmente zur Mykologie 1903, p. 7.

— Follicola; maculis late linearibus, brunneis, obscurius marginatis, amphigenis; peritheciis parallele seriatis, hypophyllis, sub stomatibus nidulantibus, brunneis, sphæroideis, papillatis, ostiolatis, 60-85 μ . latis, prominulis; ascis oblongis vel clavatis, 22-45 \times 7-11; paraphysibus nullis vel obsoletis; sporidiis lanceolatis utrinque attenuatis, polystichis, didymis, cellulis subæqualibus, hyalinis, 10-13 \times 2,5-3.

Hab. in foliis vivis *Luzulæ campestris* vel *albidæ* in silvis vallis « Mauerbachthal » dictæ Wienerwald Austriæ inferioris.

43. *Sphærella leptospora* Sacc. et Scalia, Harrim. Alaska Exped. 2176

Crypt. p. 31, pl. IV, f. 7. — Peritheciis sparsis, globulosis, primo

immersis dein liberis, 220-275 μ . diam., poro pertusis, contextu parenchymatico, fuligineo; ascis cylindraceis, rectis vel curvulis, brevissime stipitatis, 50-60 \times 7,5-9; sporidiis octonis, distichis, fusiformibus, rectis, medio 1-septatis, non constrictis, 13-15,5 \times 2,5-3, hyalinis, sæpe guttulis.

Hab. in foliis Caricis Mertensianæ, Yes Bay Alaska (HOWELL). — Affinis *S. pereziguæ*, sed perithecia multo ampliora, asci longiores et angustiores.

44. **Sphærella graminum** Sacc. et Scalia, Harrim. Alaska Exped. Crypt. 2177 p. 32, pl. IV, fig. 5. — Peritheciis sparsis, punctiformibus, 150-200 μ . diam., innato-prominulis, epidermide non atrata tectis, brevissime papillato-pertusis, contextu membranaceo-fuligineo, parenchymatico; ascis cylindraceis, subsessilibus, apice rotundatis, 65-70 \times 10-12, rectiusculis, 8-sporis; sporidiis distichis, elliptico-fusoideis, rectis, 13-16,5 \times 3,5-4 μ ., uniseptatis, non constrictis, plasmate granuloso v. minute guttulado-farctis, hyalinis.

Hab. in foliis emortuis Poæ stenanthæ, Shumagin Islands Alaska (HARRINGTON). — Affinis *S. cruri-galli*, præcipue distinguenda peritheciis majusculis ratione fructificationis.

45. **Sphærella Anthistiria** Mc. Alp. Proc. Linn. Soc. of N. S. Wales, 2178 1903, p. 102. — Peritheciis minutis, nigris, punctiformibus, erumpentibus, gregariis, globosis, membranaceis, poro pertusis, 100-120 μ . diam., amphigenis; ascis oblongo-cylindraceis, subinflatis, basi constrictis, sessilibus, aparaphysatis, 35-45 \times 17-21; sporidiis distichis vel irregulariter dispositis, hyalinis, oblongo-ellipticis, basi subconicis, 1-septatis, ad septum non constrictis 14-15 \times 4-4,5.

Hab. in foliis vivis Anthistiria australis, Brighton et Leongatha Australiae.

46. **Sphærella montellica** Sacc. sp. nova. — Peritheciis hinc inde 2179 gregariis, in pag. sup. magis distinctis, globoso-lenticularibus, punctiformibus, nigris, epidermide velatis leviterque prominulis, 70-80 μ . diam., poro pertusis, minute parenchymaticis; ascis sessilibus, obclavatis, basi rotundatis, sursum tenuatis, 38-40 \times 6-7; sporidiis distichis cuneato-oblongis, minutis, bilocularibus, loculo sup. paullulo crassiore, ad septum non v. vix constrictis, 8 \times 3, hyalinis, eguttulatis.

Hab. in foliis languidis v. emortuis Moliniæ cæruleæ, socio *Cladosporio graminum* var. *Moliniae*, Montello (Treviso). — Ab affini *Sph. ignobili* differt peritheciis, ascis sporidiisque minoribus, prætereaque peritheciis hinc inde gregariis, nec sparsis.

47. **Sphærella panicolæ** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella pa-* 2180
nicolæ P. Henn. Fungi S. Paul. I, in Hedw. 1902, p. 1092. — Peritheciis epiphyllis, cæspitose striiformibus, erumpentibus, membranaceis, subglobosis, papillatis, atris, 120-150; ascis clavatis, obtusis, octosporis, aparaphysatis, 60-70 \times 7-8; sporidiis distichis, fusoides, curvulis, utrinque obtusiusculis, medio 1-septatis, haud v. paullo subconstrictis, 17-21 \times 3,5-4, hyalinis.

Hab. in foliis Panicæ spec., in horto botanico S. Paulo Brasiliæ.

48. **Sphærella Triseti** Speg. Myc. Argent. ser. II, 1902, p. 70. — 2181
 Maculis nullis; peritheciis epidermide tectis, lenticularibus, glabris 120 μ . diam., minute ostiolato-papillulatis, atris; ascis obovato-saccatis, apice obtusissime rotundatis, basi abrupte cuneatis 70-80 \times 20, crasse tunicatis, octosporis, aparaphysatis; sporidiis utrinque obtusis, medio valide constrictis, distichis 20-22 \times 5-6 levibus, eguttulatis.

Hab. ad folia emortua Triseti cujusdam, Rio Deseado, in Patagonia.

49. **Sphærella parasitica** Wint. — Syll. XI, p. 658. — var. **Tapesiæ** 2182
 Feitg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 183. — Peritheciis gregariis subimmersis, globosis, papillatis, hyphulis brunneis cinctis, 45-80 μ . lat.; ascis subclavato-ovoideis 15-18 \times 5-8, brevissime stipitatis octosporis, aparaphysatis; sporidiis ovoideo-clavatis, bi-tristichis, 1-septatis, constrictulis, 7-8 \times 2-2,5 quadriguttulatis, ex hyalino-flaveolis.

Hab. in disco Tapesiæ roseæ, Luxemburg.

PHARCIDIA Körb. Parerga p. 469 (1865) — Syll. IX, p. 676, XI p. 303 (excl. spp. hyalophragmiis), *Epicymatia* Fuck. (1869) — Syll. I, p. 570, XI, p. 303, XVI, p. 485. — Nostro sensu hoc genus est quasi *Sphærella* lichenicola et huc ducendæ *Pharcidiæ* species hyalodidymæ, jam descriptæ dum species hyalophragmiæ sub nomine *Pharcidiopsis* Sacc. militare poterunt.

1. **Pharcidia cupularis** Pat. in Bull. Soc. Mycol. 1902, p. 303: cfr. 2183
 Hue Lichenes extra-europæi in Nov. Arch. du Museum, 4 ser. Mem. t. III, p. 62, tab. V, fig. 4 bis. — Peritheciis sparsis vel sæpius gregariis, nonnullis confluentibus, fere omnino superficialibus, nitentibus, atris, glaberrimis, globosis, sursum appianatis, minute papillato-ostiolatis, dein depresso-cupulatis 200-400 μ . latis, 200 μ . altis; ascis conglobatis, subclavatis, apice obtusis, deorsum

attenuatis, crasse tunicatis, aparaphysatis, octosporis $50 \approx 8$; sporidiis subdistichis, oblongis, utrinque attenuatis, medio 1-septatis, non constrictis, $13-15 \approx 3,4$, hyalinis.

Hab. in apotheciis Stictæ platyphyllæ Nyl. in prov. Yun-nam Sinarum (R. P. DELAVAY).

2. *Pharcidia dealbans* (J. Müll.) Sacc. et D. Sacc. *Sphaerella dealbans* 2194
J. Müll. Flora 1872, pag. 507, ap. Zopf in N. Act. Leop. Carol. LXX, 1898, p. 268. — Peritheciis innatis, globulosis, 200 μ . diam., nigris, thallo stellatim fisso cinctis, demum prominulis et poro apertis; ascis subcylindricis 45-50 μ . longis, sursum paullo crassioribus, obtusis, 8-sporis; sporidiis tereti-ovoideis, vulgo curvulis, 1-septatis, constrictulis, 14-18 μ . longis, cellula sup. paullo crassiore et brevior, hyalinis.

Hab. in thallo, quem dealbat, Endocarpi Loscosi in Aragonia Hispaniæ.

3. *Pharcidia Verruciarum* (Arnold) Sacc. et D. Sacc. *Arthopyr. Verruciarum* Arnold, Tir. XXV, pag. 44 (nomen). — Peritheciis minutis, nigris; ascis cylindræis, octosporis; sporidiis elongato-oblongis $21-23 \approx 3-4$, bicellularibus; paraphysibus obsoletis v. nullis.

Hab. in thallo Lithiceæ margacæ in Tirolia.

4. *Pharcidia innata* (Nyl.) Sacc. et D. Sacc. *Verrucaria innata* Nyl. 2186
Flora 1865, p. 358. — Peritheciis immersis, nigris, minutis; ascis octosporis, no v. vix paraphysatis, jodo vix lutescentibus; sporidiis ovoideis, bicellularibus, $18-23 \approx 8-11$.

Hab. in thallo Dacampiæ Hookeri in Ben. Lawers Scotiæ (JONES).

5. *Pharcidia lacustris* (Arnold) Zopf in Hedw. 1896, p. 317, *Theli- 2187*
dium lacustre Arnold Lich. Ausfl. Tir. XXV, p. 30 (1893). — Peritheciis sparsis, punctiformibus; emersis; ascis 8-sporis, elongatis; sporidiis fusiformibus, distichis, bicellularibus, hyalinis, sæpe 4-guttatis, $27-30 \approx 9-11$.

Hab. in thallo Aspiciliæ lacustris in Tirolia.

6. *Pharcidia rhyparella* (Nyl.) Zopf, Hedw. 1896, p. 325, *Verrucaria 2192*
rhyparella Nyl. Flora 1870, p. 38. — Peritheciis nigris, leviter emergentibus 100 μ . latis; ascis jodo non tinctis, aparaphysatis; sporidiis ovoideis, bicellularibus, $11-14 \approx 5-6$.

Hab. in thallo Dacampiæ Hookeri in Lapponia. — An, observante cl. Zopf l. c., eadem ac *Ph. Schæreri*?

7. *Pharcidia conioidea* (Nyl.) Sacc. et D. Sacc. *Verrucaria conioidea* 2189
Nyl. Fl. 1875, p. 447, Wainio Adj. II, pag. 194. — Peritheciis

perexiguus, semiimmersis, nigris; ascis aparaphysatis ventricosus, 26-32 \times 11-12, 8-sporis; sporidiis oblongo-ovoideis, bicellularibus, hyalinis, 11-12 \times 3-3,5.

Hab. in thallo Solorinæ saccatæ in Fennia. — Perithecia 70 μ . lata.

8. *Pharcidia rivulorum* (Kernst.) Sacc. et D. Sacc. *Arthopyrenia rivulorum* Kernstock ap. Arn. Tir. XXV, pag. 403. — Peritheciis perexiguus, globosis, nigris; ascis in quoque perithecio paucis, aparaphysatis, sessilibus; sporidiis ovoideis v. ellipsoideis, bicellularibus, medio constrictis, 12,5-14 \times 5,5-6.

Hab. in thallo Verrucariæ pachydermæ in Tirolia. — Asci jodo immutati.

9. *Pharcidia Rhexoblepharæ* (Wainio) Sacc. et D. Sacc. *Verrucaria Rhexoblepharæ* Wain. Adj. II, p. 194. — Peritheciis perexiguus 100 μ . diam. nigris, semiimmersis; ascis ellipsoideis 30 \times 15-18, octosporis aparaphysatis; sporidiis bicellularibus, hyalinis, ovoideo-oblongis, 14-16 \times 4-5.

Hab. in thallo Rhexoblepharæ coronatæ in Lapponia.

10. *Pharcidia allogena* (Nyl.) Sacc. et D. Sacc. *Verrucaria allogena* Nyl. Fl. 1865, p. 357. — Peritheciis semiimmersis, nigris, 250 μ . diam. parte immersa subincoloribus; ascis 8-sporis; sporidiis hyalinis, bicellularibus, 23-27 \times 8-9.

Hab. in thallo Rhizocarpi excentrici in Scotia (CARROLL).

11. *Pharcidia Atrynæ* (Arn.) Sacc. et D. Sacc. *Endococcus Atrynæ* Arnold 1882, p. 410. — Peritheciis punctiformibus, exiguis, sparsis v. subcongestis, nigris; ascis octosporis; sporidiis bilocularibus, oblongis, 12-14 \times 4-4,5; paraphysibus nullis.

Hab. in apotheciis Lecanoræ cenisiæ in M. Cavallazzo, pr. Paneveggio, Trentino.

12. *Pharcidia Martiniana* (Arn.) Sacc. et D. Sacc. *Arthopyr. Martiniana* Arn. Flora 1871, p. 147, 1872, pag. 572. — Peritheciis nigris minutissimis; ascis octosporis, filiformi-paraphysatis, jodo fulvescentibus; sporidiis bicellularibus, hyalinis, 12-16 \times 3.

Hab. in thallo Lecideæ crustulatæ vel Lec. Martinianæ in agro Veneto.

13. *Pharcidia Crombiei* (Mudd) Sacc. et D. Sacc. *Endocarpia Crombiei* Mudd Brit. Clad. p. 36, Linds. Enum. p. 29. — Peritheciis atris punctiformibus; ascis . . . ; sporidiis perexiguus, ellipsoideis, continuis, tandem bilocularibus, hyalinis.

Hab. in thallo Thamnotiæ vermicularis in Britannia.

14. *Pharcidia glebarum* (Arn.) Sacc. et D. Sacc. *Arthopyrenia glebarum* Arn. Flora, 1887, p. 152. — Peritheciis punctiformibus, atris, hinc inde confertis; ascis medio subinflatis, aparaphysatis, octosporis, $30-33 \times 12-15$; sporidiis elongatis, 1-septatis, vulgo 4-guttatis, $12-15 \times 3$, biseriatis, hyalinis.

Hab. in glebis thalli *Thalloidimæ caruleo-nigræ* in ins. Corfû.

15. *Pharcidia superposita* (Nyl.) Sacc. et D. Sacc. *Verrucaria superposita* Nyl. Flora 1865, p. 357. — Peritheciis nigris 200-250 μ . diam.; ascis octosporis jodo rubro-tinctis; sporidiis ovoideis, bicellularibus 17-19 \times 7-8, hyalinis; paraphysibus nullis.

Hab. in thallo *Polyblastiæ terrestris* in cacumine *Ben Lawers* Scotiæ (JONES et CARROLL).

16. *Pharcidia hygrophila* (Arn.) Wint. — Syll. IX, p. 677. — v. *minor* Bagl. et Carest. Anacr. 1881, p. 355 (sub nomine *Endococci hygrophili* β . *minoris*). — Ascis ellipsoideis 8-sporis; sporidiis fusiformibus v. subcuneato-elongatis, bilocularibus, hyalinis, $12-16 \times 4$.

Hab. in thallo *Verrucarizæ hydrelæ* pr. Riva Valdobbia Ital. bor.

17. *Pharcidia lichenum* Arnold — Syll. IX, p. 677 — var. *Olivaceæ* Arnold Ausfl. VII, p. 302. — Peritheciis minutis, nigris; ascis octosporis aparaphysatis; sporidiis bicellularibus, hyalinis $15 \times 6-7$.

Hab. in thallo *Parmeliæ olivaceæ* in Tirolia.

MYCOSPHÆRELLA Johans. s. s. — Syll. IX p. 659.

1. *Mycosphærella Cookei* (Linds.) Sacc. et D. Sacc. *Microthelia Cookei* Linds. Obs. pag. 537, tab. XXIII, fig. 29. — Peritheciis sparsis, papillatis, nigris; ascis saccatis polysporis, irregularibus, $45 \times 11-12$; paraphysibus indistinctis conglutinatis; sporidiis perexiguis, oblongo-ellipsoideis, hyalinis, $5,5-6 \times 2,5$, 1-septatis, non constrictis, inordinate polystichis.

Hab. in thallo *Lecanoræ crenulatæ* in Britannia. — Ob paraphyses præsentés etsi coalitas a typo recedit.

STIGMATEA Fr. — Syll. I p. 541, IX p. 660, XIV p. 534, XVI p. 478.

1. *Stigmatæa Gnaphalii* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 255. — Peritheciis gregariis vel subsparsis, cuticula pustulatim elevata velatis et foliorum villo cinctis, globosis, minute obtusiuscule papillatis, nigris 100-150 μ . diam.; ascis cylindræis, sursum

obtuse tenuatis, breve et crasse stipitatis 50-55 \times 10-11, octosporis; paraphysibus filiformibus, septulatis; sporidiis inordinatis, 1-2-stichis, elliptico-ovoideis vel elliptico-fusiformibus, utrinque obtusulis, rectis vel curvulis, medio vel submedio 1-septatis et profunde constrictis, hyalinis, 4-guttulatis, 14-19 \times 5 cellula superiori plerumque crassiori.

Hab. in pag. infer. foliorum *Gnaphalii silvatici*, Luxemburg. — *Affinis Stigm. Rumicis.*

2. **Stigmatæa Grewiæ** P. Henn. in *Ergebn. der Kunene-Sambesi Expedition* p. 165 (1902). — Maculis brunneis vel fuscis, rotundatis, exaridis; peritheciis amphigenis, gregariis, innato-prominulis, membranaceis, lentiformibus, levibus, atris, collabentibus, ca. 130-160 μ . diam.; ascis clavatis, apice rotundatis, octosporis 30-40 \times 7-10; sporidiis distichis vel oblique monostichis, oblongis, subfusoides vel clavatis, 1-septatis, 7-8 \times 3-3,5 hyalinis.

Hab. in foliis *Grewiæ caffræ*, Kuitoufer pr. Kutue et Sobi Africæ austr.

3. **Stigmatæa Piperis** Rehm in *Hedw.* 1901, p. (105). — Peritheciis in maculis foliorum orbicularibus, papyraceo exsiccatis, albidis, fusco-purpureo cinetis, 0,5-1 cm. diam., epiphyllis, gregariis, innatis, globosis, vix perspicue ostiolatis, 150-200 μ . diam., contextu e cellulis grandibus fusco; ascis clavatis, crasse tunicatis, apice rotundatis, 50-55 \times 15, octosporis; sporidiis oblongis, obtusis, medio septatis, vix constrictis, demum subflavidulis, 15-17 \times 7-8, distichis; paraphysibus non visis.

Hab. in foliis vivis *Piperis* cujusdam frutescentis, Petropoli, Rio de Janeiro Amer. austr. (v. HÖHNEL).

4. **Stigmatæa Pandani** Pat. *Bull. Soc. Mycol.* 1904, p. 136. — Maculis amphigenis, orbicularibus, fuscis, 2-4 cm. latis; peritheciis præcipue epiphyllis, erumpentibus minutis, atris, conicis; contextu celluloso, olivaceo, molli; ascis subsessilibus, late ovoideis, crasse tunicatis, octosporis 60-70 \times 20-30; paraphysibus numerosis, linearibus, ramosis; sporidiis elongatis, medio 1-septatis, vix constrictis, 27-30 \times 10-12, hyalinis.

Hab. in foliis vivis *Pandani* odoratissimi in insulis Gambier Polynesiae.

VENTURIA Ces. et De Not. — *Syll.* I p. 586, IX p. 687, XI p. 305, XIV p. 541, XVI p. 489.

1. **Venturia Deutziae** Feltg. *Vorstud. Pilz. Luxemb. Nachtr.* III, 1903, 2205

p. 245. — Peritheciis atro-brunneis, membranaceis sparsis, epidermide tectis, globosis, basi applanatis, leviter collapsis 150-200 μ . diam., setulis rigidis, atro-brunneis 25-75 \times 2,5-4, vestitis, ostiolo breviter conico; ascis late clavatis, breve stipitatis vel sessilibus 70 \times 15-16, octosporis; sporidiis distichis, oblongo- vel obovato-ellipsoideis, sæpius rectiusculis, infra medium septatis, hyalinis, intus granulosus, 21-27 \times 7-8.

Hab. in ramulis emortuis *Deutzia* scabræ, Luxemburg. —

Vent. Oxyriæ proxime affinis.

2. *Venturia Cratægi* Aderh. Ber. Deutsch. Bot. Ges. 1902, p. 200, 2203 tab. IX, et in Ann. Mycol. 1903, p. 520. — Peritheciis gregariis. hypophyllis, globosis, breve papillatis, 150 μ . diam., setis circ. 30 μ . longis, nigris prope ostiolum vestitis; contextu polygonio, tenui, subdiaphano; ascis saccatis 60-70 \times 9-11, octosporis; sporidiis superne monostichis, inferne distichis, oblongis, bicellularibus, 13-15 \times 4,5-6, melleis, septo supra medium divisis.

Hab. in foliis *Cratægi Oxyacanthæ*, hieme perdurantibus Erfurth et Kup Germaniæ. — Status conidicus est *Fusicladium Cratægi*, de quo confer infra.

3. *Venturia Kunzei* Sacc. — Syll. I, p. 588. — var. *ramicola* Sacc. et 2207 Scalia, Harrim. Alaska Exped. Crypt. p. 31, pl. IV, fig. 8. — A typo differt peritheciis ramicolis in crusta stromatica (propria?) nascentibus.

Hab. in ramis *Rubi stellati*, Unalaska Alaska (HARRINGTON).

4. *Venturia rubicola* Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, 2208 p. 15. — Peritheciis initio laxè sparsis, subcutaneis, membranaceis v. subparenchymaticis, 80-110 μ . diam., dein erumpentibus, collabentibus setulis continuis, nigris, 20-40 \times 3, curvulis, annulatim dispositis ornatis; ascis sessilibus, aparaphysatis, oblongis, 50-60 \times 10-12; sporidiis dense distichis, oblongo-ellipticis, bi-guttulatis (dein 1-septatis?) 12-15 \times 6-8, hyalinis.

Hab. in sarmentis emortuis *Rubi occidentalis*, Tacoma Park, Amer. bor. (C. L. SHEAR). — A *V. Kunzei* Sacc. ascis et sporidiis majoribus differt.

5. *Venturia Thwaitesii* Mass. et Crossl. in the Natural. 1904, p. 3. — 2209 Peritheciis minutis, 100-125 μ . diam., superficialibus, gregariis, tenui-membranaceis, globulosis collabascentibus, pilis rigidulis acutis, strictis, demum nigro-brunneis 60-70 \times 3-3,5; ascis fusiformibus 35-40 \times 6-7; sporidiis hyalinis 1-septatis, subcylindræis, utrinque obtusiusculis, rectis vel leviter curvulis, 10-12 \times 2.

Hab. in sarmentis emortuis Rubi Idæi, Masham Britanniae (W. A. THWAITES).

6. *Venturia tirolensis* v. Höhnelt in Ann. Mycol. 1903, I, p. 395. — 2210

Peritheciis epiphyllis, in epidermide immersis, tectis, subsphæroides vel ovoideis, 100-160 μ . latis, tunica molli, pallida, contextu parenchymatico, vertice atro, subclypeato, ostiolo parvo perforato, setis numerosis, usque 30-40, simplicibus, acutis, atris, hinc inde atro-brunneis, apice paullo pallidioribus, usque 200 μ . long. et 7 μ . crassis præditis; ascis late clavatis, octosporis 85-100 \approx 12-24, mox diffluentibus, paraphysatis; sporidiis subdistichis vel conglobatis, ovoideis vel ovoideo-elongatis, prope basim septatis, ad septum non constrictis, hyalinis, demum luteolis, 20-24 \approx 9-10.

Hab. parasitica in pag. sup. foliorum Dryadis octopetalæ, in valle Salden Tiroliae.

7. *Venturia Speschnewii* Sacc. et D. Sacc. *Coleroa venturioides* Spe- 2211

schnew Tifl. Bot. 1904, pag. 80, t. III, f. 14-19. — Peritheciis gregariis, subglobosis, ochraceis, primo leviter epidermide tectis, dein epiphyllis, subsuperficialibus 100-130 μ . diam., 50-80 μ . altis, setulis flexuosis, septatis, fuligineis 50-60 \approx 5-6 vestitis; ascis clavatis 30-40 \approx 8-10, aparaphysatis 8-sporis; sporidiis oblongo-ovoides, dilutissime chlorinis, 14 \approx 8.

Hab. in maculis brunneolis indistinctis amphigenis foliorum Theæ sinensis, Tschakwa pr. Batum Caucasi.

8. *Venturia caulicola* Rostr. Islands Svampe in Bot. Tidsskrift 1903, 2212

vol. 25. pag. 304. — Peritheciis superficialibus, dense setulosis, gregariis, in maculis atris, caulem ambientibus; ascis elongatis, 40-44 \approx 8-9; sporidiis ovoideo-oblongis, hyalinis, 1-septatis 13-14 \approx 5-6, loculis inequalibus.

Hab. in caule Rumicis Acetosæ, in Islandia.

9. *Venturia euchæta* Penz. et Sacc. in Malpighia 1902, p. 227, Ic. 2213

fung. Jav. t. XI, fig. 1. — Peritheciis sæpius hypophyllis, densiuscule gregariis, subsuperficialibus, punctiformibus, nigris, globulosis 100-115 μ . diam., poro exiguo pertusis, radiatim setosis; setulis remotiusculis, cuspidatis, basi bulbillosis, continuis, opacis, 56-60 \approx 7 (basi), omnibus regularibus; ascis terefi-fusoideis subsessilibus, utrinque obtusulis 30-33 \approx 7, aparaphysatis, octosporis; sporidiis oblique monostichis, oblongis, hyalinis, utrinque obtuse tenuatis, rectis 7 \approx 2,5, medio obsolete 1-septatis, non constrictis.

Hab. in foliis subcoriaceis, subviviis plantæ indet., Depok, in insula Java. — Species setulis eumorphis statim distinguenda.

10. *Venturia nebulosa* Ell. et Ev. in Journ. of Mycol. 1902, p. 66. 2214

— Amphigena; maculis ellipticis 2-5 mm. diam. vel confluentibus; peritheciis ovato-globosis 75-100 μ . diam., superne erumpentibus, membranaceis, setulis nigris, continuis 30-40 \approx 3 vestitis; ascis oblongis, abrupte basi contractis et breve stipitatis, paraphysatis 35-45 \approx 12-15; sporidiis distichis, oblongo-ovatis, hyalinis, 1-septatis, parce constrictis, 12-15 \approx 5.

Hab. in foliis emortuis *Eragrostidis* spec. Alabama Amer. bor. — *V. erysiphoidi* E. et E. et *V. graminicolæ* Wint. affinis.

DIDYMELLA Sacc. — Syll. I p. 545, IX p. 661, XI p. 301, XIV p. 535, XVI p. 479.

1. *Didymella confertissima* Sacc. Atti Congr. bot. di Palermo 1902, p. 50. 2215

— Peritheciis longe lateque effusis, confertissimis, maculas latas atras formantibus, innato-prominulis, globosis, vix papillatis, poro latiusculo pertusis, 180-200 μ . d., nigris, intus albis; contextu parenchymatico, duriusculo, fuligineo, ostioli periphysibus subhyalinis; ascis rosulatis, oblongo-clavatis, apice rotundatis, deorsum sensim tenuatis 85-100 \approx 24-28, octosporis; paraphysibus crassis, articulatis, mox dilabentibus; sporidiis distichis vel subtristichis oblongo-clavulatis 25-35 \approx 8-9, medio 1-septatis, non v. vix constrictis, apice paullulo obtusioribus, hyalinis, eguttatis.

Hab. in cortice *Cactæ* ejusdam, Rio de Janeiro Brasilie (E. ULE). — Socia adest *Exosporii* species imperfecte evoluta.

2. *Didymella fusispora* Mc. Alp. Fung. diseases, Stone-fr. trees, Melb. 1902, p. 124, f. 255-257. — Peritheciis sparsis, minutis, nigris, erumpentibus, globosis, membranaceis, initio subcutaneis, dein superficialibus, poro pertusis 120-150 μ . diam.; ascis oblongis basi constrictis, octosporis 34-37 \approx 13; paraphysibus numerosis, filiformibus; sporidiis conglobatis, fusiformibus, curvulis, 1-septatis, utrinque acutis non constrictis 26-28 \approx 3,5-4.

Hab. in ligno emortuo *Pruni Armeniacæ*, Armadale Australiæ.

3. *Didymella apiculata* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 251. — Peritheciis gregariis omnino tectis, globosis, basi subapplanatis 300-400 μ . diam., ostiolo breve cylindraceo v. conoideo epidermidem perforante; ascis anguste clavatis, apice subrotundatis, breve stipitatis, filiformi-paraphysatis 6-8-sporis 50-72 \approx 8-10; sporidiis mono-distichis, fusiformibus, utrinque acutato-api-

culatis, constrictulo-1-septatis, 14-17 \times 4-5 ex hyalino dilute fuscellis, cellula superiori subinde paullo incrassata.

Hab. in ramis siccis *Rubicæsii*, Luxemburg. — A *Didymosphaeria Idæi* sporidiis subhyalinis, apiculatis mox differt.

4. *Didymella Ricini* Ell. et Ev. — Syll. XIV, p. 535. — f. *Ailanthi* 2218
Ell. et Ev. in Jour. of Mycol. 1902, p. 67. — Ascis 45-50 \times 10-12; sporidiis oblongo-ellipticis, obtusis, luteo-hyalinis, curvulis 12-15 \times 5-6.

Hab. in ramulis emortuis *Ailanthi glandulosæ*, Alabama Amer. bor. — f. *Mucunæ* Ell. et Ev. l. c. — Ascis 40-45 \times 8-10; sporidiis oblongo-fusoideis, curvatis 12-15 \times 4-5,5 uniseptatis. — In caulibus *Mucunæ utilis* l. c. — f. *Hibisci* Ell. et Ev. l. c.: Ascis 50 \times 10; sporidiis curvatis, luteolis 12-15 \times 4-4,5, 2-3-guttulatis. — In *Hibisco esculento* ibidem.

5. *Didymella cladophila* (Niessl) Sacc. — Syll. I, pag. 545. — var. 2219
buxicola Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 251. — A typo differt peritheciis brunneis, nec nigris, sæpe in acervulos confertis erumpentibusque; ascis minoribus, 55-75 \times 6-8, sæpe 6-sporis et sporidiis oblongo-ellipsoideis 12-13,5 \times 4.

Hab. in ramis corticatis, siccis *Buxi sempervirentis*, Luxemburg.

6. *Didymella sambucina* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2220
1903, p. 252. — Peritheciis gregariis, epidermide omnino tectis, globosis vel basi subapplanatis, nigris 400-500 μ . diam., verruciformi-papillatis; ascis clavatis, superne rotundatis, deorsum tenuatis, subsessilibus 55-68 \times 10-15, octosporis; sporidiis inordinate distichis vel inferne monostichis, oblongo-ellipsoideis, utrinque acutulis, rectis vel curvulis, continuis, dein 1-septatis, non constrictis, sæpius biguttulatis, hyalinis 10-16 \times 5-6.

Hab. in ramulis corticatis *Sambuci nigræ*, Luxemburg. — Paraphyses non observatæ: an ergo *Didymellæ* species genuina?

7. *Didymella Cymbalariae* Feltg. Vorstud. Pilz. Luxemburg. Nachtr. 2221
III, 1903, p. 250. — Peritheciis sparsis vel gregariis, epidermide velatis, globosis, basi applanatis, nigris, 100-200 μ . diam., ostiolo minuto, conoideo-emergente; ascis cylindraceis, breve stipitatis, octosporis 63-72 \times 5,5-7; sporidiis monostichis, ellipsoideis v. ovoideis, medio constrictulo-1-septatis, hyalinis, minute guttulatis, 11-13 \times 4,5 cellula superiore paullo crassiore.

Hab. in caulibus siccis *Linariæ Cymbalariae*, Luxemburg.

8. *Didymella Quercus* Oud. in Ned. Kruidk. Arch. 3 ser. II, 4, p. 869, 2222

1903. — Epiphylla; maculis irregularibus, raro confluentibus, alboluteolis pallidis; peritheciis membranaceis, nigris, initio velatis dein erumpentibus, globoso-depressis 300-400 μ . diam., poro pertusis; ascis cylindraceutis, superne rotundatis 84×10 , in stipitem brevem desinentibus, octosporis; sporidiis biconoideis, centro constrictis, $20-23 \times 5-6$, quadri-guttulatis, superne inflatis, inferne curvatis obtusis; paraphysibus linearibus, obtusis, continuis,asco longioribus.

Hab. in foliis *Quercus rubræ*, Naarden Hollandiæ (C. J. KONING).

9. *Didymella pedemontana* Ferr. et Sacc., Atti Congr. bot. Palermo 1902. 2223

p. 50. — Peritheciis laxe gregariis v. sparsis, globulosis, sinuato-erumpentibus, membranaceis, nigris, 240-250 μ . diam., obtuse papillatis; ascis clavatis, breve stipitatis, apice rotundatis, sæpe curvulis $72-85 \times 12$, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis, fusoides, medio constricto-1-septatis, utrinque obtuse acutatis $21-22 \times 4,5-5$, grosse 4-guttatis, hyalinis.

Hab. in ramulis corticatis emortuis *Quercus pendunculatæ*, prope Crescentino Italiæ bor. — Affinis *D. Cadubriæ*, sed notis datis satis diversa.

10. *Didymella pallida* Starb. in Arkiv. för Bot. 1904, Band 2, p. 17. 2224

— Peritheciis sparsis v. hinc inde laxe gregariis, interdum nonnullis confertis v. confluentibus immersis, vertice paullum emergentibus, discoideis v. depresso lenticularibus, 200-250 μ . diam. circa ostiolum vix papillulatum areola pallide griseo-orbiculari præditis, contextu pulveraceo-carbonaceo, atrato; ascis cylindraceutis sursum obtusis v. rotundatis, incrassatis, subsessilibus, 65×10 ; sporidiis octonis subdistichis, ellipsoideo-oblongis, utrinque obtusis, 1-septatis, non constrictis, hyalinis, $12-14 \times 4-6$; paraphysibus copiosis, filiformibus gracillimis, flexuosis, ramulosis, 1 μ . cr.

Hab. ad lignum prope Rio Apá, Colonia Risco, Paraguay. — Ob perithecia lignicola subcarbonacea ostiolumque areolatum videtur potius *Melanopsammæ* sp.

11. *Didymella elliptica* Starb. in Arkiv. för Botan. 1904, Band 2, 2225

p. 16, fig. 36-39. — Peritheciis laxe gregariis, interdum 2-3 confluentibus, fibris ligni primum tectis, deinde erumpentibus, ellipticis v. oblongatis, utrinque obtusis, depressis, rarius orbiculari-lenticularibus, rugosis, carbonaceis crassis, immersis, primo clausis deinde papillula, mox collapsa præditis, demum ore latiusculo, lacerato apertis, nigris, $400-500 \times 150-200$; ascis cylindraceutis, apice rotundatis, 1-foveolatis, deorsum paullo crassioribus v. subclavatis,

breve stipitatis 56-75 \times 9-11, 8-sporis; sporidiis monostichis, vulgo inferne subdistichis, elongato-ellipsoideis v. subclavulatis utrinque obtusiusculis, ad medium 1-septatis, hyalinis 12-15 \times 5-6,5; paraphysibus copiosis filiformibus, flexuosis, ramulosis, hyalinis, 1 μ . cr.; jodi ope nulla.

Hab. ad truncum siccum, Corumbá, Matto Grosso Brasiliæ. —

Ob perithecia lignicola, carbonacea potius *Melanopsammæ* species.

12. *Didymella goyazensis* Sacc. et Syd. Ann. Mycol. 1904, p. 162. — 2226

Peritheciis in series breves longitudinales digestis, globulosis, innatis, erumpentibus, perexiguis, 80-100 μ . diam., ostiolo breve papillato, facile secedentibus; ascis cylindraceis, breviter stipitatis, 45-64 \times 5 $\frac{1}{2}$ -7 octosporis, paraphysatis; sporidiis distichis, fusoides, utrinque attenuatis, medio 1-septatis, subhyalinis vel flavidis, 11-15 \times 2-2 $\frac{1}{2}$.

Hab. in foliis *Andropogonis hirtiflori*, Goyaz Brasiliæ (A. GLAZIOU). — Ubi sporidia tandem rigrescant ad *Didymospherium* species transferenda esset.

13. *Didymella subalpina* Rehm, Hedw. 1902, p. (204). — Peritheciis 2227

dispersis, primitus immersis, denique sessilibus, glabris, globosis, poro conspicuo pertusis, fusce parenchymatice contextis, membranaceis, atris, 200 μ . diam.; ascis clavatis 60-65 \times 10-12, octosporis; sporidiis ellipticis, subobtusis, medio septatis, ad septum valde constrictis, utrinque biguttulatis, hyalinis 12-14 \times 5, distichis; paraphysibus filiformibus, hyalinis, 2 μ . crassis.

Hab. in foliis siccis gramineis sub monte Taubenberg Bavarix superioris.

14. *Didymella præstabilis* Rehm in Öst. Bot. Zeitschr. 1904, p. 83. 2228

— Peritheciis plerumque gregariis, in parenchymate foliorum fusco primitus innatis, dein subsessilibus, globosis, haud papillatis poro vix conspicuo pertusis, siccis patellariformiter collabentibus, parenchymatice contextis, glabris, fusco-atris 200-250 μ . diam.; ascis ellipticis vel piriformibus, basi lata sessilibus, crasse tunicatis 60-75 \times 18-21, octosporis; sporidiis oblongo-ellipticis, interdum subclavatis, obtusis, medio septatis, vix constrictis, utraque cellula plerumque 1-2 guttas oleosas magnas includente, rectis, rarius subcurvatis, hyalinis 18-25 \times 6-9, distichis; paraphysibus paucis, ramosis.

Hab. ad culmos foliaque graminum juxta moles glaciales montis Ortler et montis Taschach Tirolis.

Didymellopsis Sacc. Species lichenicolæ.

15. *Didymella latitans* (Nyl.) Sacc. et D. Sacc. *Obryzum latitans* Nyl. 2229
Flora 1885, pag. 298. — Peritheciis innatis, minutissimis, nigris;
ascis oblongo-saccatis 8-sporis, paraphysatis; sporidiis oblongo-
ovoideis, bicellularibus, 16-21 \times 6-7, hyalinis.

Hab. in thallo *Omphalaria* cribelliferæ prope Amélie
Pyrenæorum orient.

16. *Didymella perigena* (Nyl.) Sacc. et D. Sacc. *Sphæria perigena* Nyl. 2230
Flora 1878, p. 341. — Peritheciis nigris, globosis, 150 μ . diam.;
ascis octosporis, clavato-cylindræis, molliter paraphysatis; spori-
diis fusiformibus, bilocularibus, hyalinis, 18-23 \times 6-7.

Hab. in thallo *Endopyrenii* trapeziformis, Biskra Al-
geriæ.

17. *Didymella verrucosaria* (Linds.) Sacc. et D. Sacc. *Microthelia* 2231
verrucosaria Linds. Enum. p. 27, *Cercidospora* Arn. Lich. Fränk.
Jura, 1890, pag. 48, Mudd Man. 165. — Peritheciis punctiformi-
bus, atris, contextu olivaceo; ascis cylindræis, filiformi-paraphy-
satis, octosporis; sporidiis bicellularibus, hyalinis, 15-17 \times 5.

Hab. in thallo *Aspiciliæ* verrucosæ in Britannia et in
Jura franconico.

18. *Didymella sphinctrinoides* (Zwackh) Berl. et Voglino — Syll. IX, 2232
p. 672. — var. *immersæ* Arnold ap. Zopf, Hedw. 1896, p. 339:
Peritheciis immersis globosis nigris; ascis cylindricis 8-sporis; spo-
ridiis bicellularibus, hyalinis, 18 \times 6; paraphysibus filiformibus.

Hab. in thallo *Lecidellæ* immersæ, in Germania.

19. *Didymella epicarphinea* (Nyl.) Sacc. et D. Sacc. *Verrucaria* *epi-* 2233
carphinea Nyl. Flora 1872, p. 431. — Peritheciis nigris promi-
nulis 150-180 μ . diam.; ascis 8-sporis; sporidiis ovoideis v. fusoi-
deis, bicellularibus, 18-25 \times 6-7, hyalinis; paraphysibus medioeribus.

Hab. in thallo *Placodii* carphinei in Pyrenæis orient.

20. *Didymella Bérangeriana* (Arnold) Sacc. et D. Sacc. *Endococcus* 2234
Bérangerianus Arnold apud Wint. Pilzfl. II, pag. 348, *Pharcidia*
hygrophila var. *Bérangeriana* (Arnold) Sacc. — Syll. IX, p. 676.
— Peritheciis minutissimis, nigris, globosis prominulis; ascis ob-
longis, paraphysatis, octosporis; sporidiis bicellularibus, hyalinis,
22-28 \times 5-6.

Hab. in thallo *Biatoræ* Bérangerianæ in Tirolia.

MASSARINULA Gen. de Lamarl — Syll. XIV p. 536, XVI p. 483.

1. *Massarinula phyllodiorum* Mc Alp. Proc. Linn. Soc. N. S. Wales 2235

1903, pag. 555. — Maculis numerosis, amphigenis, plus minusve orbicularibus, sæpe confluentibus, pallidis vel pallide brunneis, distincte brunneo-marginatis; peritheciis paucis, nigris, diu immersis dein erumpentibus, globosis, subcarbonaceis, poro pertusis, 250 μ . diam.; ascis clavatis, subsessilibus, octosporis 120-140 \approx 30-50; sporidiis distichis vel conglobatis, hyalinis, lanceolatis, 1-septatis, ad septum subconstrictis, rectis vel subcurvulis, 54-64 \approx 13-16; paraphysibus copiosissimis, agglutinatis, filiformibus, subseptatis.

Hab. in phyllodiis *Acaciæ longifoliæ*, *Mordialloc* in *Victoria Australiæ* (C. FRENCH).

2. *Massarinula Barbieri* (West.) Rehm — v. *subalpina* Rehm Ascom. 2236

exs. n. 1570, Ann. Mycol. 1904, p. 520: cfr. Sacc. Syll. I, p. 547 sub *Didymella*. — Peritheciis basi insculptis, 150 μ . diam., contextu brunneo parenchymatico; ascis clavatis, apice rotundatis, sessilibus, 50 \approx 12, octosporis; sporidiis bicellularibus, lacrymiformibus, utrinque rotundatis, septo leviter constrictis, 4-guttatis, hyalinis, distichis, 12 \approx 6, strato mucoso tenui obductis.

Hab. in ramulis emortuis *Ericæ carneæ*, Valepp, in alpidibus bavaricis.

APIOSPORA Sacc. — Syll. I p. 539, IX p. 659, XI p. 301, XIV p. 534, XVI p. 477.

1. *Apiospora chondrospora* (Ces.) Sacc. et D. Sacc. Ita vocanda est *Cryptosporella chondrospora* (Ces.) Rehm — Syll. I, pag. 467 — nam ejusdem sporidia et perithecia fabricam *Apiosporæ* præbent Cl. Ruhland — cfr. Syll. XVI p. 485 — ad genus novum *Aplacodina* superfluum, ut videtur, erexit Cl. v. Höhnelt nuperius, Ann. Mycol. 1904, p. 42 ad *Spegazzinulam* duxit inter *Hypocreaceas*, a quo genere omnino abhorret.

MELANOPSAMMA Niessl — Syll. I p. 575, IX p. 682, XI p. 303, XIV p. 539, XVI p. 486.

1. *Melanopsamma balnei-ursi* Rehm, Oester. Bot. Zeitschr. 1903, p. 10. 2237

— Peritheciis sparsis, lata basi sessilibus, subglobulosis, haud papillulatis, poro vix conspicuo pertusis, nigris, opacis, glabris, 500-800 μ . d., contentu crassiusculo, parenchymatico, submembranaceo; ascis 10-14, octosporis; sporidiis ellipsoideis, utrinque obtusis, medio septatis et paullulum constrictis, utrinque crasse guttulis,

hyalinis, distichis, 20×8 , cellula superiore interdum sublatis; paraphysibus subramosis, septatis, hyalinis $1,5 \mu$. cr.

Hab. ad ramulos emortuos Dryadis octopetalæ in Valle Kaiserthal Tiroliae. — A *Melanops. anaxæa* satis diversa.

2. *Melanopsamma utahensis* Ell. et Ev. in Journ. of Mycol. 1903, 2238 p. 168. — Peritheciis gregariis, diu epidermide tectis, dein superficialibus, subglobosis, subdepressis, circ. $0,5 \text{ mm. diam.}$; ascis clavato-cylindræis, breve pedicellatis, 75×12 ; paraphysibus evanescentibus; sporidiis subdistichis, clavato-oblongis, hyalinis, 1-septatis, constrictis, subcurvulis, $25-30 \times 6-7$.

Hab. in caulibus emortuis Acteæ rubræ, Salt Lake, Utah. Amer. bor.

3. *Melanopsamma nitens* Rehm, Hedw. XLIV p. 3 (1904). — Peritheciis in maculis epiphyllis, suborbicularibus, cineriscentibus ob hyphas rectangulariter ramosas, hyalinas, arcte congregatas archnoideis, c. 1 cm. diam. , gregarie sessilibus, conoideis, atris, niten-
tibus, poro minutissimo pertusis, carbonaceis, $0,25-0,5 \text{ mm.}$; ascis cylindræis p. sporif. $50-60,5-6$, 8-sporis; sporidiis fusiformibus, utrinque rotundatis, medio septatis, utraque cellula guttis oleosis magnis 2 prædita, ad septum leviter constrictum facili-
ter secedentibus, hyalinis, $8-10-2,5-3$, monostichis; paraphysibus filiformibus, $1,5$.

Hab. in foliis Meliaceæ, Blumenau Brasiliæ (E. ULE). —

Peritheciis magnis nitidis sporidiisque vero minutis dignoscitur.

4. *Melanopsamma minima* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2240 II, p. 211. — Peritheciis sparsis, globoso-depressis, non collabascen-
tibus, basi leviter insculptis vel libero-superficialibus, rugulosis, atro-brunneis, $80-150 \mu$. diam.; ascis elliptico-ovoideis, $31-40 \times 13-15$; sporidiis 2-3-stichis vel inordinatis, ovoideo-ellipsoideis, bicellularibus, cellula superiore paullo crassiore, leviter constrictis, rectis curvulisve, hyalinis, vulgo biguttatis, $18-21 \times 5-6,5$.

Hab. in ligno putri Salicis, Luxemburg. — Contextus peritheci-
i parenchymaticus, atro-brunneus, cellulis exterioribus colliculoso-prominulis.

ERIOSPHÆRIA Sacc. — Syll. I p. 597, IX p. 696, XI p. 307, XVI p. 490.

1. *Eriosphæria conoidea* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2241 1903, p. 282. — Peritheciis dense gregariis, cortice interiori basi insculptis, erumpentibus dein sub vertice leniter collabentibus, hy-

phis septatis ramulosis, 2 μ . cr., brunneis, præcipue basi vestitis, levibus; ascis cylindræis v. cylindræo-clavatis, apice rotundatis, 2-feveolatis, crasse breve stipitatis, 62-72 \times 6-8, octosporis; sporidiis mono-distichis, tereti-ellipsoideis utrinque obtusis, continuis, dein medio tenuiter 1-septatis, non constrictis, hyalinis, 2-guttulatis, 8-9 \times 3,5-5.

Hab. in cortice sicco Piri communis, Luxemburg.

2. *Eriosphæria Scheremetieffiana* P. Henn. in Hedw. 1904, p. 69. — 2242

Peritheciis superficialibus, sparsis v. gregariis, punctiformibus, hyphis castaneis septatis 3-4 μ . crassis circumdati, ovoideis, atris, vertice obtusis, 70-100 \times 50-70 μ . diam., setulis rigidis, atris, acutis 20-30 \times 3-4 μ . vestitis; ascis clavatis, apice obtuse rotundatis, octosporis 30-40 \times 4-5; sporidiis oblique monostichis vel subdistichis, oblonge cylindræis, utrinque obtusis, rectis vel subcurvulis, 7-8 \times 1,5-2,5, medio septatis, hyalinis.

Hab. in ligno decorticato *Quercus pedunculatæ*, Michailowskoje, in ditione Mosquensi Rossia.

3. *Eriosphæria atriseda* (Feltg.) Sacc. et D. Sacc. *Trichosphæria* 2243

atriseda Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 205. — Peritheciis gregariis, ligno denigrato superficialibus, globoso-ovoides, conico-papillatis, papilla alba, denique papilla elapsa pertusis, nigris, minute rugulosis 0,1-0,2 mm. latis, basi hyphis septatis, brunneis, ramosis 2-3 μ . cr., cinctis; ascis cylindricis, sursum leviter tenuatis, subsessilibus vel modice stipitatis, 30-45 \times 2,5-3,5; paraphysibus filiformibus, septatis, 2-3 μ . crassis; sporidiis vulgo recte monostichis, breve cylindræis, utrinque rotundatis v. ovoides, rectis curvulisve, bi-cellularibus, vix constrictis, hyalinis, 4,5-6,5 \times 2-2,5.

Hab. in ligno decorticato putri *Alni glutinosæ*, Luxemburg. — Lignum usque 2-3 mm. profunde denigratum; habitus *Eriosphærie vermicularioidis*.

4. *Eriosphæria blumenavica* Henn. in Hedw. 1902, p. (64). — Peri- 2244

theciis superficialibus sparsis v. aggregatis, membranaceo-subcarbonaceis, globosis, apice papillatis v. depressis, atris 350-400 μ . d., setulis atris, rigidis vestitis; ascis subclavatis v. subfusoides, apice subobtusis, basi attenuatis, substipitatis, octosporis 80-95 \times 24-30; paraphysibus copiosis filiformibus, subhyalinis, ca. 3 μ . crassis; sporidiis subdistichis oblonge ellipsoideis, utrinque obtusis, medio 1-septatis, paullo constrictis, 25-30 \times 10-13, hyalinis.

Hab. in ramulis corticatis, *S. Catharina* Brasiliæ (Dr. MÖLLER).

LIZONIELLA P. Henn. Hedw. 1901, p. (96) ut subg. (Etym. a *Lizonia*).

— A typo *Lizonice* differt imprimis sporidiis omnino hyalinis. Hue ergo quoque ducendæ: *Lizoniella Jacquiniæ* (Bres.) Sacc. et D. Sacc. *L. Sphagni* (Cooke), *L. halophila* (B. R. S.), *L. opposita* (B. et R.), *L. Lagerheimii* (Rehm).

1. **Lizoniella Johansonii** (Rehm) Sacc. et D. Sacc. *Lizonia Johansonii* 2245

Rhem in Est. Bot. Zeitschr. 1904, p. 86. — Peritheciis in parte sup. foliorum gregariis, erumpenti-superficialibus, glabris, globulosis, haud papillulatis, atris, parenchymatice fusco-nigro-contextis, 100-150 μ . diam.; ascis oblongis, apice rotundatis sessilibus, 70 \times 30 octosporis; sporidiis oblongis, utrinque rotundatis, medio septatis, haud constrictis, hyalinis 30-32 \times 15, distichis; paraphysibus nullis.

Hab. in foliis siccis Dryadis octopetalæ, in monte Herzogenstand Bavariae.

2. **Lizoniella Gastrolobii** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizo- 2246

niella) *Gastrolobii* P. Henn. F. Australiae occid. I, in Hedw. 1901, p. (96). — Syll. XVI, p. 1133 (nomen). — Maculis fuscis; peritheciis amphigenis, caespitose erumpentibus, epidermide fissa, pallida velatis, caespitulis pulvinatis ca. 0,5-1 mm. diam., atro-brunneis, e peritheciis subconfluentibus numerosis, subglobosis, minutis, subrugulosis, compositis; ascis clavatis v. subfusoides, apice obtusiusculis, basi attenuatis curvulis 60-70 \times 15-20, apapophysatis, octosporis; sporidiis oblique monostichis vel distichis, oblongis vel subfusoides-clavatis, utrinque obtusiusculis, medio 1-septatis, paullo constrictis, hyalinis, pluriguttulatis 16-23 \times 6-8.

Hab. in foliis vivis *Gastrolobii* spinosi, Perth Australiae occid.

3. **Lizoniella Oxylobii** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizoniella) 2247

Oxylobii P. Henn. F. Australiae occid. I, in Hedw. 1901, p. 97. — Syll. XVI, p. 1133 (nomen). — Maculis fusciculis; peritheciis submembranaceis, epiphyllis, caespitose erumpentibus, raro simplicibus, subglobosis, lateraliter compressis, atro-brunneis, rugulosis, haud papillatis, ca. 150-180 μ . diam., in caespitulis pulvinatis effusis, confluentibus, contextu celluloso, castaneo; ascis clavatis v. fusoides-clavatis, apice crasse tunicatis, obtuso-rotundatis, basi attenuatis 80-100 \times 15-20, octosporis, apapophysatis; sporidiis oblique monostichis v. distichis, oblongis v. subclavatis 2-pluriguttulatis, medio 1-septatis, paullo constrictis, 18-22 \times 7-9, hyalinis.

Hab. in foliis vivis *Oxylobii* linearis, Perth Australiae occid.

4. **Lizoniella Perkinsiae** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizo- 2248

niella) *Perkinsæ* Henn. in Hedw. 1902, p. (63). — Maculis fuscis, peritheciis cæspitose aggregatis in soris pulvinatis 0,5-1 mm. diam., erumpenti-superficialibus, subglobosis, rugulosis, atro-brunneis ca. 300 μ . diam., vix papillatis; ascis oblonge ovoideis vel clavatis, apice hyalino-tunicatis, obtusis, octosporis 45-60 \times 18-26; sporidiis distichis v. conglobatis, oblongis subcylindræis vel subclavatis, utrinque obtusis, 20-23 \times 6-7 hyalinis.

Hab. in foliis vivis *Styracis Rorariæ*, Gujana britannica (R. SCHOMBURGK).

5. *Lizoniella singularis* (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizoniella) *singularis* P. Henn. in Hedw. 1903, p. (80). — Peritheciis superficialibus, singularibus, raro aggregatis, subcoriaceis, subglobosis, atris, 40-50; ascis fasciculatis, clavatis, apice truncatis, octosporis, 18-22 \times 4-5; sporidiis distichis 1-septatis, haud constrictis, clavatis, hyalinis, 8-10 \times 2-2,5.

Hab. in foliis siccis *Leucopogonis hispidi*, pr. Minginew Australiæ occid. (E. PRITZEL, L. DIELS).

OTTHIELLA Sacc. — Syll. I, p. 739 (ut subgenus). A genere *Otthia* differt sporidiis hyalinis v. subhyalinis. — Huc ducendæ sunt, præter *Otthiellam Ribis*, sequentes: *Otthiella seriata* (Peck) Sacc. et D. Sacc., *Otthiella Winteri* (Rehm) Sacc. et D. Sacc., *Otthiella Hazslinszkyi* Sacc. et D. Sacc., *Otthiella alnea* (Peck) Sacc. et D. Sacc. — Cfr. Syll. I, p. 739-740.

1. *Otthiella Ribis* (Tracy et Earle) Sacc. et D. Sacc. *Otthia* (Otthiella) *Ribis* Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fung. p. 29. — Peritheciis dense cæspitosis, erumpentibus, subrotundis, nigris, rugosis, globosis, 250-500 μ . diam.; ascis cylindræis, octosporis, stipitatis, 80-100 \times 12-15; sporidiis distichis, ellipticis, hyalinis vel dilutissime luteolis, 1-septatis, constrictis, 18-20 \times 5-6.

Hab. in ramis *Ribis*, Bob Creek, South Colorado Amer. bor.

GIBBERA Fr. — Syll. I p. 599, IX p. 699, XI p. 306, XIV p. 542, XVI p. 491.

1. *Gibbera juruensis* P. Henn. Fungi Amaz. II, p. 242, cum icone (Hedw. 1904). — Stromatibus subcarbonaceis atris; peritheciis liberis superficialibus aggregatis, interdum confluentibus, rugulosis, verrucosis, atris, papillato-ostiolatis, ca. 250-300 μ . diam.; ascis cylindræo-clavatis, obtusis, 8-sporis, 70-100 \times 7-9; paraphysibus filiformibus, hyalinis, 1 $\frac{1}{2}$ -2 μ . crassis; sporidiis subdistichis, fusoi-

deis, subacutis, medio 1-septatis constrictis, primo hyalinis dein flavidis, 18-22 \approx 4-5.

Hab. in foliis Bignoniaceæ cujusdam, Rio Jurua, Jurua-Miry Amazoniæ. — Perithecia deorsum non vere hirta sed verrucoso-aspera.

LENTOMITA Niessl — Syll. I, p. 584, IX p. 693, XIV p. 542.

1. *Lentomita dubia* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, 2252 pag. 279. — Peritheciis dense gregariis, omnino superficialibus vel in cortice suberumpenti-superficialibus, globosis v. basi subapplanatis, carbonaceo-membranaceis, nigris 250-300 μ . diam., ostiolo tenui, cylindrico vel curvulo 700-900 μ . long., apice subinde incrassatulo; ascis clavatis, breve stipitatis, sessilibus, apice rotundatis, nunc 40 \approx 10-13, nunc 80-87 \approx 12-14, octosporis; sporidiis 2-3-stichis, oblongo-fusoideis, acutiusculis, rectis vel curvulis, medio constricto-1-septatis 4-guttulatis, hyalinis 13-18 \approx 2,8-4.

Hab. in ramulis corticatis et decorticatis Callunæ vulgaris, Luxemburg. — Forte *Lentomitæ longirostratæ* affinis: an sporidia demum 3-septata?

2. *Lentomita herpotricha* Sacc. et in Atti Congr. bot. Palermo 1902, 2253 p. 51. — Peritheciis gregariis v. sparsis, a basi innata globoso hemisphæricis, brunneis, 300-350 μ . d., hyphis fuliginis tortuosis 180-200 \approx 3, adpressis, ima basi cinctis, ceterum glabris, ostiolo cylindraceo obtuso, nigro, 180 \approx 80 præditis; peritheciis contextu obscure dense celluloso, fuligineo; ascis cylindraceo-clavatis, breve stipitatis, apice rotundatis 90-100 \approx 11-12, filiformi-paraphysatis, octosporis; sporidiis distichis, fusoideis, curvis rectisve, utrinque obtusatis, medio 1-septatis, leviter constrictis, 4-guttulatis, 20-22 \approx 5, 5-6, hyalinis, tandem dilutissime fuscidulis.

Hab. in ligno denudato, putri, Rigny sur Arroux Galliæ. — Præcipue peritheciis brunneis ostioloque nigro, brevi dignoscenda species.

SPUMATORIA Massee et Salm. — Syll. XVI p. 1134.

1. *Spumatoria longicollis* Mass. et Salm. Coproph. fungi I, pag. 35, 2254 fig. 27. — Peritheciis sparsis, 0,75-1 mm. alt., semiimmersis demum superficialibus subglobosis, olivaceis, membranaceis, contextu parenchymatico e cellulis polygonis 6-10 μ . latis composito, glabris v. basi hyphis repentibus instructis, in rostrum longissimum cylindricum, atrum, rugulosum, apice fimbriatum plus minus

dilatatum, abrupte attenuatis; ascis cylindraceis 110-130 \approx 13-15 deorsum in stipitem attenuatis, octosporis citissime diffluentibus; sporidiis monostichis oblongis, utrinque rotundatis 15-19 \approx 5 hyalinis, 1-septatis, medio haud constrictis, demum in spumam mucilaginosam ex ore rostri ejectis; conidiis in eodem perithecio productis, oblongis, hyalinis 17-20 μ . long., 1-septatis, basi plus minus attenuatis, in conidiophoris simplicibus brevibus acrogenis.

Hab. in fimo equino, Epping Forest, Essex Britanniae.

GNOMONIA Ces. et De Not. — Syll. I p. 561, IX p. 672, XI p. 302, XVI p. 483.

1. **Gnomonia pusilla** Sacc. et Flag. sp. n. — Peritheciis laxo gregariis, globulosis, membranaceis, nigris, $\frac{1}{3}$ mm. diam., epidermide tumidula velatis ostioloque acute papillato erumpentibus, basi (in sicco) leviter excavatis, contextu parenchymatico olivaceo-fulgineo; ascis tereti-oblongis, sessilibus, utrinque, praecipue apice, obtusulis, 22-26 \approx 5-7, aparaphysatis, octosporis, tunica tenuissima; sporidiis distichis v. oblique monostichis, fusoides, rectis curvulisve, 6-8 \approx 2, utrinque obtusiusculis, rarius acutiusculis, 4-guttulatis, demum tenuiter 1-septatis, non vel vix constrictis, hyalinis.

Hab. in caulibus emortuis Poterii Sanguisorbæ, Rigny sur Arroux (Saone et Loire) Galliae. — Affinis praecipue *Gnom. tithymalinæ* sed omnibus partibus minor.

2. **Gnomonia Molluginis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 130, et III, 1903, p. 156, *Gnomonia borealis* Feltg. I, 1889, p. 384, non Schroet. — Peritheciis late sparsis v. gregariis, epidermide tumidula tectis 300-500 μ . diam, globosis, basi applanatis et siccitate concavis, in ostiolum rostellatum, rectum vel curvum tenuatis; ascis clavatis vel fusoides-clavatis, sessilibus, 45-54 \approx 8-10, fasciculatis; sporidiis distichis elliptico-fusiformibus 15-18 \approx 4-5, utrinque obtusulis, constricto-1-septatis, 4-guttulatis.

Hab. in caulibus siccis Galii Molluginis, Luxemburg. — Affinis *Gnom. Fautreyi*.

3. **Gnomonia Hieracii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 156. — Peritheciis gregariis, late effusis, globoso-ellipsoideis epidermide immutata tectis 500 μ . diam., ostiolo brevi acute conoideo, nitido, perithecium dimidium æquante; ascis clavatis, clavato-fusoides, deorsum stipitiformi-tenuatis, sursum leniter attenuatis, poro distincto praeditis, 46-52 \approx 10-12,5, octosporis, aparaphysatis, utrinque obtusulis, 1-septatis, medio haud constrictis, hyalinis.

physatis; sporidiis bi-tristichis, fusoides, utrinque rotundatis, constrictulo-1-septatis, 4-guttulatis, $13-15 \approx 3-4$.

Hab. in caulibus siccis Hieracii borealis, Luxemburg. — Affinis *Gn. tithymalinæ*.

4. **Gnomonia rhoïna** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2258 p. 131 *Diaporthe* spec. n. 633, Feltg. Vorstud. Pilz. Lux. 1899, I, p. 198, et *Gnomonia* spec. n. 675, Feltg. l. c. p. 213. — Peritheciis sparsis vel hinc inde confertis, corticulis et vulgo basi ligno insculptis, in ostiolum conicum vix emergens tenuatis; ascis teretibus, brevibus stipitatis, obtusulis $40-60 \approx 7-9$; sporidiis monostichis oblongo-ellipsoideis, utrinque obtusis, constricto-1-septatis rectis vel curvulis $12-18 \approx 3-4$, 4-guttulatis, cellula superiore subinde crassiore.

Hab. in ramis siccis *Rhois typhinae*, Luxemburg. — Ad *Diaporthem* nutat.

5. **Gnomonia Aceris** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2259 p. 131, et III, pag. 157. — Peritheciis 200 μ . diam. sparsis vel hinc inde approximatis, globosis, basi insculptis, peridermio tectis, ostiolo cylindraceo-rostellato, perithecio duplo vel triplo longiore; ascis clavato-fusoides apice bifoveolatis $38-45 \approx 7,5-10$, octosporis, paraphysatis; sporidiis, 2-3-stichis, obtuse fusiformibus, rectis, medio septatis, non constrictis, intus granulosis, $10-13 \approx 2-3$.

Hab. in ramulis siccis *Aceris campestris*, Luxemburg.

6. **Gnomonia epidermidis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2260 1903, p. 157. — Peritheciis sparsis, subglobosis valde depressis, cum epidermide connatis, minute papillatis v. poro tantum præditis, perexiguus, 80-100 μ . diam.; ascis obovoideis $30-35 \approx 10,5$, octosporis, paraphysatis; sporidiis 3-4-stichis, fusiformibus, acutulis, bicellularibus, 4-guttatis, rectis vel leviter curvis, hyalinis, $15-15,5 \approx 2,6$.

Hab. in ramis corticatis *Aceris campestris*, Luxemburg. — Peritheciis minutissimis, cum epidermide connatis mox dignoscitur species.

7. **Gnomonia Æsculi** Oud. Beih. Bot. Centr. 1902, p. 5. — Peritheciis immersis, sparsis v. per paria confluentibus, globosis 500 μ . d., rostro recto v. curvulo, 500 μ . longo instructis; ascis distichis, hyalinis, cylindraceis, rectis v. curvatis, utrinque rotundatis, medio septatis, ad septum non constrictis, absque ciliis vestigio, 3 v. 4-guttulatis, $16-18,5 \approx 2,5$.

Hab. in petiolis *Æsculi rubicundæ*, Nunspect Hollandiæ.

— Ab omnibus fere speciebus descriptis differt ascis multo brevioribus (35 μ . contra 45-90) et a *Gn. setacea* (Pers.) Ces. et De Not. ciliorum absentia.

8. *Gnomonia circumscissa* Mc. Alp. Fungus dis. Stone-fr. tr., Melb. 2262
1902, p. 94, t. XXI, fig. 50,51,52. — Peritheciis minutis, amphigenis, punctiformibus, erumpentibus, intense luteo-brunneolis, membranaceis, poro pertusis 120-150 μ . diam., ostiolo 60-75 μ . long., in maculis minutis, nigris, gregariis, insidentibus; ascis subsessilibus, octosporis obclavatis 50-60 \times 24-25, raro oblongo-cylindraceis 95-130 \times 15-17; sporidiis subhyalinis vel pallide luteis in massa, ovato-oblongis, 1-septatis, non constrictis, eguttulatis, granulosis, 20-26 \times 5,5-7,5.

Hab. in foliis Pruni Armeniacæ, Pr. domesticæ, Pr. Cerasi, Pr. Persicæ etc. in Australia.

9. *Gnomonia Vitis-Idææ* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2263
II, p. 129, *Gnomonia campylostyla* Auersw. var. β . Feltg. Vorstud. Pilz. Luxemb. 1899, p. 211. — Peritheciis immersis, ostiolo conico acuto tantum emergentibus; ascis . . . non visis; sporidiis fusiformibus bicellularibus, hyalinis, 12 \times 2,5.

Hab. in foliis adhuc stantibus vel delapsis Vaccinii Vitis-Idææ, Luxemburg.

10. *Gnomonia petiolicola* (Fuck.) Karst. — Syll. I, p. 568. — var. *Rhododendri* Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 128. 2264
— A typo differt ostiolo cylindrico longiore; ascis ellipsoideo-fusiformibus, 40-52 \times 8-10, 5; sporidiis æqualiter bilocularibus, fusiformibus, 12-18 \times 2,5-3, utrinque filiformi-apiculatis.

Hab. in petiolis Rhododendri spec., Luxemburg.

11. *Gnomonia rigniacensis* Sacc. et Flag. sp. nova. — Peritheciis 2265
gregariis parenchymate innatis, membranaceis, nigris, $\frac{1}{3}$ mm. diam., ostiolo crassiusculo, tereti-conico, perithecium subæquante erumpente; contextu perithecii sinuoso, tenui, olivaceo-fusco; ascis tereti-fusoideis, 50 \times 10-11, aparaphysatis, octosporis; sporidiis fusoides, utrinque acutiusculis, 12-16 \times 3-4,5, rectis v. leniter inæquilateris, quadriguttulatis, infra medium 1-septatis, non constrictis, hyalinis.

Hab. in petiolis nervisque primariis foliorum putrescentium Corni sanguineæ, Rigny sur Arroux Galliæ. — Affinis *Gnomoniæ cerastæ*, *G. errabundæ*, *G. petiolicolæ* sed satis diversa; matrix quoque aliena.

- 12 *Gnomonia Needhami* Mass. et Crossl. in the Natural. 1904, p. 3. 2266

— Peritheciis sparsis, semiimmersis, subglobosis, brunneo-nigris, 350 μ . diam., rostro longissimo, stricto, subcylindræo, apicem fimbriato, concolore 1-1,5 mm. longo; ascis subovatis, 24-28 \times 12-16; sporidiis hyalinis, 1-septatis, ellipsoideis, 14-22 \times 6-8.

Hab. in foliis emortuis Abietis, Crimsworth Dean, Hebden Bridge Britanniae (J. NEEDHAM).

MELANCONIS Tul. — Syll. I p. 602, IX p. 700, XIV p. 543, XVI p. 492.

1. **Melanconis populina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2267 p. 119. — Stromatibus sparsis, subrotundis 1 mm. lat., pulvinato-semiglobosis, cortice interiore subimmutato nidulantibus, nigricantibus, disco griseo-flavido erumpente, linea stromatica lignea nulla limitatis; peritheciis in quoque stromate numerosis, globoso-ovoideis, 200-250 μ . diam., ostiolis obtuse conico-papillatis emergentibus; ascis tereti-clavatis, sursum leviter tenuatis, deorsum sensim tenuato-stipitatis, 63-76 \times 9-10, 5, filiformi-paraphysatis, octosporis; sporidiis subdistichis, oblongo-ellipsoideis, rectis curvulisve, utrinque rotundatis, medio septato-constrictis, hyalinis, intus granulosus, 16-18 \times 5.

Hab. in ramis siccis corticatis Populi italicæ, Luxemburg.

2. **Melanconis Quercus** Oud. Contrib. Fl. Myc. des Pays-Bas XVIII, 2268 p. 707. — Stromate valseo; peritheciis in singulo stromate 6-12 collis robustis, obtusis, summo fere inflatis, ad 500 μ . altis; ascis elongatis 70 \times 10-12, octosporis; paraphysibus filiformibus; sporidiis distichis, fusiformibus, utrinque obtusis, non appendiculatis 18,5 \times 4,5 bi-guttulatis.

Hab. in ramis Quercus Roboris, Valkenberg Hollandiæ.

DIAPORTHE Nits. — Syll. I p. 606, IX p. 702, XI p. 307, XIV p. 543, XVI p. 492.

1. **Diaporthe** (Chorostate) **Androsæmi** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 152. — Stromatibus sparsis vel subgregariis e basi subrotunda 1-1,5 mm. lata, obtuse conoideis, epidermide bullata tectis; peritheciis in quoque stromate paucis, cortice nidulantibus, ovoideis 300-400 μ . diam., collis brevibus in ostiola papillata in discum conjuncta abeuntibus; ascis tereti-fusoideis, octosporis 50-65 \times 5,5-7; sporidiis subdistichis, obtuse ellipsoideis, rectis 1-septatis, leviter constrictis 4-guttulatis, hyalinis, 10-16 \times 2,7-4,5

Hab. in ramulis corticatis *Androsæmi officinalis*, Luxemburg. — *Diap. Dirceæ* affinis videtur.

2. *Diaporthe* (Chorostate) *Feltgeni* (Feltg.) Sacc. et Syd. — Syll. XVI, 2270 p. 493. — var. *Cydoniæ* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 148. — A typo differt peritheciis in quoque stromate parcioribus; ascis brevioribus, $50-65 \approx 8-12$, octosporis; sporidiis paullo minoribus et obtusioribus, $11-16 \approx 4-5$, quadriguttatis, nec granulosis.

Hab. in ramulis *Cydoniæ vulgaris*, Luxemburg.

3. *Diaporthe* (Chorostate) *congesta* Ell. et Ev. in Journ. of Mycol. 2271 1903, pag. 165. — Stromate conico-globoso 0,5 cm. diam.; peritheciis globosis 0,5 mm. diam. ab imo stromatis immersis, 20-30 in singulo stromate congestis, papillato-ostiolatis; ascis clavato-cylindræis, $60 \approx 6$, octosporis; sporidiis oblongo-fusoideis, subdistichis, hyalinis, 3-4-nucleatis, dein 1-septatis, $11-13 \approx 2,5-3$.

Hab. in ramis emortuis *Piri americanæ*, Sailors' Encampment, Mich., Amer. bor.

4. *Diaporthe* (Chorostate) *Mali* Bres. in P. Strasser, Zweiter Nachtr. 2272 zur Pilzflora des Sonntagberges, in Verhandl. d. k. k. zool. bot. Ges. in Wien 1902, p. 433. — Stromatibus subepidermicis, cortice interiori innatis, verruciformibus, basi applanatis 2-3 mm. latis, apice conoideis, pallidis; peritheciis 3-10 in quovis stromate, majusculis 300-500 μ . diam., obovatis vel mutua pressione difformibus, collis perithecii diam. paulo longioribus; ostiolis cylindræis plus minus prominentibus apice subattenuatis; ascis fusoideis $65-72 \approx 10-14$; sporidiis hyalinis, uniseptatis, ad septa subconstrictis, sæpe subcurvulis, guttulis, $18-25 \approx 4-6$.

Hab. in ramis *Piri Mali*, Sonntagsberg Austriæ bor.

5. *Diaporthe* (Chorostate) *ribesia* Rehm in Œst. Bot. Zeitschr. 1904, 2273 p. 82. — Stromatibus valsoideis, conoideis, in cortice interiore imutato nidulantibus, per peridermium elevatum varieque dilaceratum erumpentibus 2-3 mm. diam.; peritheciis globulosis 8-10 circinatim positis, 500 μ . diam., ostiolis subglobosis in disculo atro, dein pallide fuscido 1 mm. diam., circinatim emergentibus; ascis fusiformibus $60-75 \approx 15-18$, octosporis; sporidiis oblongis, medio septatis ibique constrictis, utraque cellula guttam magnam oleosam includentibus, hyalinis, utrinque filiformiter 5 μ . long. appendiculatis, $18-20 \approx 6-7$, distichis; paraphysibus ramosis.

Hab. in ramulis siccis *Ribis saxatilis*, in alpihus vallis Œtz Tirolæ.

6. *Diaporthe* (Chorostate) *spiræicola* Feltg. Vorstud. Pilz. Luxemb. 2274
Nachtr. III, 1903, p. 147. — Stromatibus dense confertis, ramos
totos occupantibus, sæpe seriatis, basi cortice interiore vel ligno
innatis, linea nulla stromatica cinctis, sed matricem intus dealban-
tibus, e basi 1-2,5 mm. lata, subrotunda subconicis, erumpentibus
et ostiolis obtuse conicis vel subcylindræis et nodosis, discum ro-
tundum, latiusculum initio albidum formantibus; peritheciis mo-
no-distichis, 15-30 in quoque stromate, 200-300 μ . lat.; ascis tereti-
fusoideis, apice rotundatis bi-foveolatis, deorsum tenuatis 57-63 \times
8,5, octosporis; sporidiis mono-distichis, fusoideis, acutis, rarius ob-
tusis, rectis curvulisve, constrictulo-1-septatis, 4-rarius 6-guttula-
tis, 14-17 \times 4,5, rarius 14 \times 6, hyalinis.

Hab. in ramis corticatis siccis *Spirææ* spec., Luxemburg. —
Diaporthe liphæmiæ et *D. conjunctæ* affinis.

7. *Diaporthe* (Chorostate) *microstroma* Ell. et Ev. in Journ. of Myc. 2275
1903, p. 224. — Stromatibus 0,5 mm. diam. subrotundis, nigris
et ambitu in parenchymate interiori linea circumscriptis; perithe-
ciis 1-4 præcipue in singulo stromate congestis, 250 μ . diam., ostiolo
brevi, conico, papillato non erumpente donatis; ascis clavato-ob-
longis, 80-100 \times 15-20, paraphysibus numerosis evanescentibus ob-
vallatis; sporidiis distichis initio fusoideis, utrinque acutis, dein
maturitate plus minusve obtusis 1-septatis et constrictis, 22-30 \times
10-13.

Hab. in corticibus *Aceris saccharini*, London, Canada,
Amer. bor.

8. *Diaporthe* (Chorostate) *celastrina* Ell. et Barth. in Journ. of Myc. 2276
1902, p. 173. — Peritheciis circinantibus, 5-10-congestis, globosis,
500 μ . diam., intus griseis, immersis, ostiolis 0,5-1 mm. longis,
brevibus levibus subconico-acuminatis fasciculatis erumpentibus;
ascis clavato-cylindræis 50-60 \times 6-8; sporidiis superne distichis,
oblongo-cylindræis, bi-nucleatis, 1-septatis, ad septa constrictis.
12-15 \times 4-5.

Hab. in caulibus emortuis *Celastris* scandentis, Clyde,
Kansas Amer. bor.

9. *Diaporthe* (Chorostate) *Buxi* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2277
III, 1903, p. 150. — Peritheciis ternis senis confertis, stromata
valsea in cortice formantibus, dein erumpentibus et epidermide
rupta cinctis, globosis, 200-250 μ . diam., ostiolis globoso-applanatis,
erumpentibus, in discum vix emergentem conjunctis; ascis tereti-
clavatis, apice rotundatis, deorsum stipitiformi-tenuatis, octosporis

78-104 \approx 10, aparaphysatis; sporidiis submonostichis oblongo-fusoideis, rectis, rarius curvulis, utrinque obtusis, 4-guttatis, medio 1-septatis constrictisque hyalinis, 15-20 \approx 5-5,5.

Hab. in ramis corticatis Buxi sempervirentis, Luxemburg. — Socia adest *Phomæ* spec., sporulis cylindræis, biguttatis 5-6 \approx 1,5-2.

10. *Diaporthe* (Chorostate) *Comptoniæ* (Schw.) Ell. et Ev. — Syll. IX, 2278 p. 705. — var. *berolinensis* P. Henn. in Notizblatt des Kgl. bot. Gart. Berl. 1900, n. 22, p. 37. — Pustulis gregariis epidermide velata tectis, rimosis; peritheciis paucis 3-5, atris, ostiolis brevibus, 300-400 μ . diam.; ascis clavatis apice rotundatis, octosporis 30-50 \approx 10-13; sporidiis subdistichis, oblongis, subfusoideis, utrinque obtusiusculis v. acutiusculis, interdum subinaequilateralibus, medio 1-septatis, constrictis, 4-guttulatis, 16-19 \approx 4,5-5 hyalinis.

Hab. in ramis *Comptoniæ* asplenifoliæ, in horto botanico Berolinensi Germaniæ.

11. *Diaporthe* (Chorostate) *Mezerei* Feltg. Vorstud. Pilz. Luxemb. 2279 Nachtr. II, p. 126. *Diaporthe* e) Feltg. Vorstud. Pilz. Luxemb. I, 1899, p. 206. — Stromatibus sparsis, depresso-conoideis, cortice nidulantibus; peritheciis in quoque stromate 5-8, basi applanata ligno adnatis, sursum in ostiola conica, discum minutum vix emergentem formantia productis; ascis fusoideis 54-60 \approx 9; sporidiis distichis, ellipsoideis, obtusulis, constricto-1-septatis, 15 \approx 4-5, rectis hyalinis, 4-guttulatis.

Hab. in ramis siccis *Ampelopsidis* hederaceæ, Luxemburg.

12. *Diaporthe* (Chorostate) *Juniperi* Feltg. Vorstud. Pilz. Luxemb. 2280 Nachtr. III, 1903, p. 149. — Stromatibus sparsis e basi subrotunda 1-2,5 mm. lata, obtusæ conoideis, cortice nidulantibus, leviter infantibus et discum nigrum 0,5-1,5 mm. diam. revelantibus; peritheciis in cortice immutato nidulantibus 6-18 in quoque stromate, monostichis, globosis, 200-500 μ . lat., collis coalitis in ostiola breve conica in discum conjuncta abeuntibus; ascis tereti-clavatis, apice rotundatis, bi-foveolatis, stipitatis, aparaphysatis 90-120 \approx 7-8, octosporis; sporidiis monostichis, ellipsoideis, rectis curvulisve 10-16 \approx 5-6 septo tenuissimo medio divisis, hyalinis, minute guttulatis.

Hab. in ramis corticatis *Juniperi* communis, Luxemburg.

13. *Diaporthe* (Chorostate) *Pinastri* Feltg. Vorstud. Pilz. Luxemb. 2281 1899, Nachtr. II, p. 126. — *Diaporthe* c) Feltg. Vorstud. Pilz.

Luxemb. I, 1899, p. 205. — Stromatibus valsiformibus corticolis disco minuto, rotundo erumpentibus; peritheciis parvis, ostioliis obtusis præditis; ascis ovoideo-ellipticis $33-36 \approx 12-14$; sporidiis fusiformibus, obtuse acutatis, rectis curvulisve, constrictulo-1-septatis, 2-3-stichis, 2-4-guttatis.

Hab. in ramis siccis Pini silvestris, Luxemburg.

14. *Diaporthe* (Chorostate) *anisomera* Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30, pl. V, fig. 10. — Stromatibus gregariis, corticolis, erumpentibus, ambitu suborbicularibus, convexis, 1,3-1,5 mm. diam., intus ligneo-pallidis; peritheciis 10-20, globosis vel mutua pressione irregularibus, 200-250 μ . diam., monostichis, ostioliis breve cylindræis, parum emergentibus, apice rotundatis; ascis fusoidæo-clavatis, apice obtusis, deorsum tenuatis, $80-90 \approx 11-13$, octosporis; sporidiis distichis, obovatis, $14-17 \approx 5-5,5$, infra medium septatis, non constrictis, faretis, hyalinis et initio strato mucoso inæquali obductis, articulo superiore fere duplo majore.

Hab. in ramis emortuis decorticatis Coryli (?), Yakutat Bay Alaska (TRELFEE). — Etsi matrix non certa, species videtur distinguenda ob sporidia eximie anisomera.

15. *Diaporthe* (Chorostate) *italica* (Sacc.) Trav. in litt. sp. nov. *Diaporthe forabilis* f. *acervata* Sacc. in herb. — Stromatibus valseis, sparsis vel gregariis, e basi ellipsoidea conico-applanatis, 1-2 mm. diam., corticolis, erumpentibus, infra linea nigra nulla circumscriptis; peritheciis in quoque stromate 4-8, circinantibus, subglobosis, $\frac{1}{3}-\frac{1}{2}$ mm. diam. in collum cylindræum abrupte attenuatis; ostioliis in fasciculum dense stipatis, per peridermium perforatum erumpentibus, plus minusve longe exsertis, apice sæpe incrassatulis, atris; ascis cylindræo-clavatis vel oblongis, apice bifoveolatis octosporis, $40-48 \approx 7-8$; sporidiis distichis vel, multo rarius, oblique monostichis, ellipsoideo-fusiformibus, 4-guttulatis, medio uniseptatis sed non constrictis, hyalinis, $11-12 \approx 3-3\frac{1}{2}$.

Hab. in ramis corticatis emortuis Populi pyramidalis, Patavii, martio 1874 (SACC.). — A *Diaporthe* (Ch.) *populea* et *pulchella* ascis sporidiisque minoribus, 4-guttatis sed ad septum non constrictis ostioliisque magis elongatis satis distincta.

16. *Diaporthe* (Chorostate) *simplicior* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 154. — Stromatibus gregariis, subrotundatis e basi usque 1 mm. lata, obtuse conoideis, disco minuto, subrotundo; peritheciis parvis (4-6) in quoque stromate, in cortice immutato nidulantibus globoso-depressulis, nigris, 250-300 μ . lat.,

linea stromatica in ligno nulla; collis manifestis in ostiola globulosa parum emergentia abeuntibus; ascis tereti-fusoideis, apice bifoveolatis $43-48 \approx 5,5-8$ octosporis; sporidiis distichis, oblongo-cylindræis, obtusis, rectis, 1-septatis, leviter constrictis, 4-guttulatis, hyalinis, $10-13 \approx 2,5-3$.

Hab. in ramis siccis Populi Tremulæ, Luxemburg.

17. *Diaporthe* (Chorostate) *caryigena* Ell. et Ev. in Journ. of Mycol. 2285
1903, pag. 223. — Peritheciis 3-6 congestis, corticolis, globosis, 500 μ . diam., ambitu parenchymateque interiori linea nigra distincta 0,5-1 mm. diam. circumscriptis; ostiolis fasciculatis initio tectis, dein erumpentibus, papillatis; ascis subcylindræis p. spor. $60 \approx 10$; sporidiis submonostichis, ellipticis, 1-septatis utrinque rotundatis vel obtusis, constrictis, $9-13 \approx 3,5-4,5$.

Hab. in ramis corticatis Caryæ, London, Canada Americæ borealis.

18. *Diaporthe* (Tetrastaga) *rhoïna* Feltg. Vorstud. Pilz. Luxemb. Na- 2286
chtr. III, 1903, p. 145. — Stromate maculiformi, acute limitato, versiformi, $0,5-2,5 \approx 0,3-0,7$ mm., plano convexo, nigrificante; peritheciis cortice nidulantibus, plerumque 2-4-approximatis, globoso-ovoideis, 200-300 μ . diam., ostiolis breve-conoideis emergentibus; ligno infra immutato sed linea stromatica nigra limitato; ascis oblongo-clavatis, sessilibus, octosporis $35-45 \approx 8-10$; sporidiis distichis rarius tristichis, obtuse ellipsoideis, rectis v. curvulis medio septatis constrictisque, 4-guttulatis, hyalinis, $12-14 \approx 3,5-4,5$.

Hab. in ramis corticatis Rhois typhinae, Luxemburg. — Affinis *Diap. crustosæ*.

19. *Diaporthe* (Tetrastaga) *tamaricina* Sacc. et Flag. in Atti Congr. 2287
bot. Palermo 1902, p. 52. — Peritheciis gregariis, cortice immutato immersis, globosis, perexiguis, vix 250 μ . d., ostiolo minutissimo perforante, vix exstante; ascis fusoides aparaphysatis, octosporis; sporidiis distichis, fusoides, sæpe curvulis, $10 \approx 2,5$ obsolete guttulat, hyalinis, utrinque obtusiusculis.

Hab. in ramulis emortuis Tamaricis anglicæ, Paray-le-Monial Gallie. — Linea nigra stromatica endoxyla nulla distincta.

20. *Diaporthe* (Tetrastaga) *Rhododendri* Feltg. Vorstud. Pilz. Lu- 2288
xemb. Nachtr. III, 1903, p. 141. — Peritheciis gregariis, sparsis v. fere valsiformiter 4-5 approximatis, substantia stromatica nulla, globosis, ostiolis rotundatis, singulis vel pluribus epidermidem perforantibus et paullo emergentibus; ascis fusoides, breve stipitatis, apice obtusato-conicis, bi-foveolatis $55-61 \approx 7-8$, octosporis; spori-

diis distichis, fusoidis, 1-septato-constrictis, 4-guttatis, 12-14 \times 3-4, utrinque appendicula conica hyalina auctis.

Hab. in ramis siccis corticatis *Rhododendri* spec. cultæ Luxemburg.

21. *Diaporthe* (Tetrastaga) *Catalpæ* Ell. et Ev. in Journ. of Mycol. 2289
1903, p. 224. — Peritheciis sparsis vel 2-4 congestis, 0,5-0,8 mm. diam., semiimmersis, ligno linea nigra 1-2 cm. diam. circumscripto, ostiolo subgloboso, erumpenti donatis; ascis clavato-oblongis 40-50 \times 6-7; sporidiis subdistichis, fusideo-oblongis, 4-nucleatis, 10-12 \times 2,5-3.

Hab. in ramis emortuis *Catalpæ*, London, Canada, Amer. bor.

22. *Diaporthe* (Tetrastaga) *sechalinensis* Sacc. in Atti Congr. bot. di 2290
Palermo 1902, p. 52. — Peritheciis gregariis, minutis, globoso-depressis, 300 μ . diam., membranaceis, nigris, intus griseis, cortice fere immutato nidulantibus, ostioli conico-cylindricis perforantibus breviterque emergentibus; ascis fusoidis 48 \times 8 apapophysatis; sporidiis octonis fusiformibus, utrinque brevissime apiculatis, 13-15 \times 3-4, 4-guttatis, hyalinis.

Hab. in caule *Polygoni sechalinensis* culti, Côte-d'Or Galliæ (FAUTREY). — A *Diap. discordi*, *D. discrepante* et *D. maculosa* satis diversa. Linea stromatica atra per lignum varie excurrit.

23. *Diaporthe* (Tetrastaga) *Nucis-Avellanæ* Feltg. Vorstud. Pilz. Lu. 2291
xemb. 1901, Nachtr. II, p. 121. — Stromate effuso, maculiformi, nunc 0,4-0,8 mm. diam., nunc latiore 1-4 mm., valde versiformi, plura perithecia amplexante; peritheciis nunc sparsis, nunc fere valsiformiter congestis, matricis superficiem nigrificantibus, sed non elevantibus, substantiam interiorem non mutantibus, subglobosis, nigris 200-300 μ . diam., in ostiola nodulosa, cylindracea, recta vel curvula 300-800 μ . longa, abeuntibus; ascis fusoidis, apice bifoveolatis, 47-58 \times 6,5-7,5, octosporis, rarius 5-6-sporis; sporidiis subdistichis, fusoidis, rectis vel curvulis constrictulo-1-septatis, 4-guttulatis, hyalinis, 13-18 \times 4-5, utrinque appendicula conica 2,5-3 μ . longa auctis.

Hab. in putaminibus *Coryli Avellanæ*, Luxemburg.

24. *Diaporthe* (Tetrastaga) *disputata* Bomm. Rouss. et Sacc. — Syll. 2292
XI, p. 312. — var. *Ulm*i Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 143. — A typo dignoscitur peritheciis paginæ inf. epidermidis adnatis, duplo crassioribus, 500-700 \times 300-400, subastomis, inferne albo-pruinosis; ascis 40-60 \times 5,5-7,5, apapophysatis, 6-8-

sporidis; sporidiis distichis, rarius tristichis, 13-15 \times 4-5, utrinque rotundatis, 4-guttatis, hyalinis.

Hab. in ramis corticatis Ulmi campestris var. suberosæ, Luxemburg. — An potius species distincta?

25. *Diaporthe* (Euporthe) *Hircini* Feltg. Vorstud. Pilzfl. Luxemb. 2293 Nachtr. III, 1903, p. 134. — Stromate effuso, non acute limitato, ligni stratum superiorem nigrificante, sed linea stromatica nulla in ligno limitato; peritheciis sparsis vel gregariis, subinde valsiformiter confertis, globosis 300-500 μ . diam., nigricantibus, ostioli cylindræis, rectis v. obliquis, rugosis, nunc brevibus, nunc sexies perithecium superantibus; ascis tereti-fusoideis, apice bifoveolatis 50-60 \times 7-8, octosporis; sporidiis mono-distichis, fusiformibus, utrinque obtusis, medio septatis, non vel vix constrictis, 4-guttulatis 10-18 \times 2,5-3,5, hyalinis.

Hab. in caulibus decorticatis Hyperici hircini, Luxemburg.

26. *Diaporthe* (Euporthe) *Teucrit* Feltg. Vorstud. Pilz. Luxemb. 1903, 2294 Nachtr. III, p. 134. — Stromate maculiformi, forma vario 1-6 cm. longo, 1-6 mm. lato, nigricante, in ligno linea nulla limitato; peritheciis subglobosis, nigris 200-250 μ ., ligno subimmersis, sparsis v. aggregatis, plerumque seriatim erumpentibus, ostiolo rostellato 1 mm. et ultra long., recto v. curvo; ascis elliptico-fusoideis, sessilibus, 50-55 \times 7-8, octosporis; sporidiis distichis breve fusoides, rectis curvulisve, bicellularibus, constricto-septatis, hyalinis, 4-guttatis, 14-16 \times 4-4,5.

Hab. in caulibus corticatis Teucrit Scorodoniæ, Luxemburg. — *Diaporthe Rubiæ* affinis.

27. *Diaporthe* (Euporthe) *conigena* Feltg. Vorstud. Pilz. Luxemb. 2295 Nachtr. III, 1903, p. 136. — Peritheciis globosis 200-300 μ . diam., sparsis vel paucis 3-10 valsiformiter aggregatis, parenchymate immutato nidulantibus, sed maculam brunneam nigram irregularem vel subrotundam convexulam efficientibus, ostioli emergentibus solitariis vel sæpe in discum subrotundum, parum elevatum conjunctis; ascis clavato-fusoideis, breve stipitatis, octosporis, apice rotundatis, apophysatis 40-44 \times 6,5-9; sporidiis distichis v. partim monostichis, obtuse fusiformibus, utrinque rotundatis, rectis curvulisve, medio septatis non v. vix constrictis, 4-guttulatis, hyalinis 11-15 \times 4,5-5, utrinque primitus minute brevissimeque appendiculatis.

Hab. in squamis strobilorum Abietis excelsæ, Luxemburg.

28. *Diaporthe* (Euporthe) *verecunda* Sacc. et Flag. in Atti Congr. bot. 2296

Palermo 1902, p. 52. — Peritheciis in interiore corticis durioris superficie fusco maculata immersis, globulosis, membranaceis, 400 μ . diam., atris, intus albidis, ostiolis exiguis, corticem perforantibus sed vix superantibus; ascis fuscoideis, aparaphysatis, apice bifoveolatis, 45-50 \times 6,5-7,5 octosporis; sporidiis fuscoideis utrinque obtusatis, 11-13 \times 2,8-3, medio leviter constrictis, 4-guttatis, hyalinis.

Hab. in pag. interiore corticis secedentis Salicis (an capreae?) Rigny sur Arroux Galliae. — Notis datis videtur distinguenda.

MYRMÆCIUM Nitschke et Fuck. — Syll. I p. 600, XVI p. 492.

1. **Myrmæcium fraxineum** Ell. et Ev. in Journ. of Myc. 1903, p. 168. 2297

— Peritheciis ovato-ellipticis, 100-125 μ . diam., subimmersis, in stromate 3 \times 1,5 mm. diam. confertis, superne planiusculis et erumpentibus, nigris, contextu albo; ascis cylindraceis, p. spor. circ. 75 \times 8-10; paraphysibus evanescentibus; sporidiis monostichis vel superne distichis, ovoideis, hyalino-olivaceis, 1-septatis, plus minusve ad septum constrictis, 12-14 \times 5-6.

Hab. in ramis emortuis Fraxini viridi? River Forest, Illin. Amer. bor. — A *M. endoleuco* Sacc. sporidiis subolivaceis, constrictis differt.

ENDOTHIA Fr. — Syll. I p. 600, IX p. 700, XIV p. 550.

1. **Endothia longirostris** Earle in Muhlenbergia 1901, p. 14. — Stro- 2298

matibus dense sparsis, subinde confluentibus late flavis, matrice profunde insertis, innatis, demum erumpentibus vulgo subelongatis 5-6 \times 2-3 mm.; peritheciis 5-6 usque 15 in quoque stromate immersis, nigris circ. 0,5 mm. diam., ostiolis longe exsertis, usque 1 cm., brunneo-flavis, rugulosis; ascis fusiformibus, tenuiter tunicatis, aparaphysatis 25-30 \times 6, octosporis; sporidiis ovoideis, demum aequaliter 1-septatis, 6 \times 3.

Hab. in cortice arborum prope Santurce Portorico. — Sporulae pycnidicae adsunt minutissimae 2 \times 1 ex ostiolis nonnullis in cirros corallinos eructatae.

Sect. 5. Phæodidymæ.

PHÆOSPHÆRELLA Karst. — Syll. IX p. 723, XI, p. 312.

1. **Phæosphærella Marchantiæ** P. Henn. Verhandl. Bot. Ver. Prov. 2299
Brandeab. 1904, p. 120. — Maculis effusis, brunneo-fuscis vel ci-

nereis exaridis; peritheciis innato-erumpentibus, punctiformibus, gregarie sparsis, lenticularibus, atris, contextu membranaceo, fusco-atro, celluloso, medio poro late pertusis, ca. 80-100 μ . diam.; ascis subcylindræis, vertice rotundato-obtusis, basi subfasciculatis, paraphysatis, 8-sporis, 70-80 \times 9-10; sporidiis oblique monostichis vel subdistichis, subclavato-fusoideis, rectis vel curvulis, utrinque subacutiusculis, medio 1-septatis, paulo constrictis, fuscis 10-15 \times 3 $\frac{1}{2}$ -4.

Hab. in thallo Marchantiæ polymorphæ pr. Berlin Germaniæ (K. OSTERWALD).

2. **Phæosphærella araneosa** (Rehm) Sacc. et D. Sacc. Ita vocanda *Epicymatia araneosa* (Rehm) Sacc. — Syll. I, p. 572 — seu *Sphærellothecium araneosum* (Rehm) Zopf in N. Act. Leop. Car. LXX, 1897, p. 178, cum icon. — Sporidia matura omnino fuliginea, 12,5-14,3 \times 5,4; paraphyses nullæ.

TICHOTHECIUM Flotow — Syll. IX, p. 723, XIV, pag. 551, XVI, p. 498. — Aptius forte est hoc genus limitandum ad species tantum ascis polysporis sporidiisque phæodidymis præditas. Cfr. Syll. IX, p. 726, sect. II.

1. **Tichothecium microcarpum** Arn. Tirol. XIV, p. 477. — Peritheciis 2300
nigris, minutissimis; ascis 20-sporis paraphysatis; sporidiis bicellularibus, brunneis, 6-8 \times 3-3,5, ovoideis.

Hab. in apotheciis Callopismatis sp. et Biatorinæ dilutæ in Tirolia.

DIDYMOSPHERIA Fuck. — Syll. I p. 701, IX p. 728, XI p. 312, XIV p. 551, XVI p. 498.

1. **Didymosphæria minima** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2301
1903, p. 246. — Peritheciis gregariis vel sparsis, omnino tectis, globosis, basi applanatis, nigris 80-150 μ . diam., subinde epidermide denigrata tectis, ostiolo minuto conico, emergente; ascis teretibus, deorsum tenuatis, filiformi-paraphysatis 55-85 \times 3,5-5, octosporis; sporidiis mono-distichis, obovato-ellipsoideis vel subfusoideis, obtusulis, rectis vel curvulis 1-septatis, non constrictis, olivaceo-brunneis, 8-9 \times 3-4, cellula superiori vulgo paullo crassiore.

Hab. in caulibus corticatis Echii vulgaris, Luxemburg. — Proxime affinis *Didym. subconoideæ*.

2. **Didymosphæria Stellaris** v. Höhnelt Fragm. zur Mycol. 1903, p. 6. 2302
— Follicola; peritheciis teneris, sparsis, epidermide non nigre-

scente tectis, plerumque nervis foliorum insidentibus, sphæroideis, brunneis, obscurius papillatis, ostiolo 30-40 μ . lato pertusis, 170-250 μ . latis; tunica molli, e cellulis tenuibus, majusculis formata; ascis octosporis, clavatis, 80-100 \times 16-18, breve et crasse pedicellatis; sporidiis distichis, flavis, elongato-fusiformibus, utrinque attenuatis, strato tenui, hyalino circumdatis, rectis vel plerumque curvulis, 24-36 \times 6-9, didymis, cellula supera quam inferiore triplo vel quadruplo longiore, paraphysibus numerosis, filiformibus, crassiusculis.

Hab. in foliis languidis *Stellariæ nemorum*, in silvis prope Westendorf Tirolia

3. *Didymosphæria Idæi* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2303 II, p. 172. — Peritheciis gregariis 0,5-1 \times 0,2-3 mm. epidermide immutata velatis et ostiolo conico atro-brunneo erumpentibus, globoso-depressis; ascis cylindricis, 82-104 \times 8,5-10; sporidiis oblique monostichis, oblongis, sæpe inæqualiter bi-cellularibus, leviter constrictis, 13-15 \times 4-5,5, brunneis, intus granulosis; paraphysibus tenuiter filiformibus.

Hab. in ramulis siccis *Rubi Idæi*, Luxemburg.

4. *Didymosphæria Rhois* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2304 1903, p. 248. — Peritheciis sparsis vel hinc inde approximatis, epidermide non elevata sed supra perithecia leviter denigrata tectis, globoso-depressis 150-450 μ . diam.; ascis cylindricis, brevè stipitatis 80-100 \times 7-9, filiformi-paraphysatis, octosporis; sporidiis monostichis, oblongo-ellipsoideis, utrinque rotundatis, medio septatis, non v. vix constrictis, acutis-curvulisve, brunneis 10-13 \times 5-6.

Hab. in ramulis corticatis *Rhois typhinae*, Luxemburg. — Tam a *Didym. majore*, quam a *Didym. rhoina* bene distincta. 2305

5. *Didymosphæria Hippophaës* Rehm, Hedw. 1903, p. (292). — Peritheciis gregariis sub epidermide nidulantibus eamque protrudentibus, globulosis, minutissime papillulatis, ostiolo conspicuo prominentibus, glabris, nigro-fuscis, ad basim hyphis nonnullis subfuscis, septatis 50 \times 5 vestitis; contextu parenchymatico 100-120 μ . diam.; ascis obclavatis 60 \times 12, octosporis; paraphysibus ramosis; sporidiis oblongis v. clavatis, utrinque obtusis, 1-septatis, utraque cellula sæpe 2-biguttulatis, interdum cellula superiore brevior, ad septum vix constrictis, flavido-fuscidulis 12-15 \times 5-6, distichis.

Hab. in foliis putrescentibus *Hippophaës rhamnoidis*, Kaiserthal prope Hinterbärenbad Tirolia (Dr. REHM).

6. *Didymosphæria massarioides* Sacc. et Brun. — Syll. IX, p. 729. 2306

— var. *Hederæ* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 248. — A typo differt clypeo stromatico nigricante circa ostiolum; peritheciis globosis 400-600 μ . diam.; ascis paullo longioribus 136-152 \approx 8-10; sporidiis non constrictis 19-21 \approx 5,5-7, brunneis.

Hab. in ramis corticatis *Hederæ Helicis*, Luxemburg.

7. *Didymosphæria cryptosphærioides* Rehm, Ann. Mycol. 1904, p. 176. 2307

— Peritheciis gregariis, sub epidermide albescente fere confertis, sed non botryose nidulantibus eamque subhemisphæricæ elevantibus, dein ostiolo conoideo minutissimo perforantibus, demum liberis, globosis, glabris, nigris 0,3 mm. diam. subcarbonaceis; ascis clavatis, apice rotundatis 120-140 \approx 12-15, octosporis; sporidiis ellipsoideis, medio septatis, haud constrictis, subfuscis 18-20 \approx 9-10, in ascis parte superiore distichis, in inferiore monostichis; paraphysibus ramosis, septatis, 4 μ . crassis.

Hab. ad corticem (Mesquite = *Acacia?* *Prosopis?*) Texas Amer. bor. (Long). — Peritheciis sub epidermide primitus gregariis eamque *Cryptosphæricæ* modo poris minutis perforantibus sporidiisque in ascis distiche positae a ceteris speciebus divergens, forsitan potius *Amphisphæricæ* species propter perithecia carbonacea.

8. *Didymosphæria epidermidis* (Fr.) Fuck. — Syll. I, p. 709. — var. 2308

petiolorum Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 174, *Didym.* spec. Felt. Vorstud. Pilz. Luxemb. I, 1899, p. 272. — Peritheciis sparsis immersis, vix papilla minuta emergentibus, globoso-depressis, collabascentibus; ascis tereti-clavatis, filiformi-paraphysatis, 84-90 \approx 7-9; sporidiis monostichis, obtuse ellipsoideis, brunneolis, ad septum leniter constrictis, eguttulatis v. biguttulatis 9-15 \approx 5-6.

Hab. in petiolis siccis *Robiniae Pseudacaciæ*, Luxemburg.

— Var. *Catalpæ* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 249. — A typo differt peritheciis non collabascentibus 100-400 μ . diam., sporidiis jugiter monostichis, vulgo eguttulatis, 10-13 \approx 5-6. In ramulis corticatis *Catalpæ bignonioidis*, Luxemburg.

9. *Didymosphæria lignicola* Feltg. Vorstud. Pilz. Luxemb. 1901, 2309

Nachtr. II, p. 173. — Peritheciis gregariis v. sparsis, ligno basi insculptis, erumpentibus, clypeo atrato, angusto tectis; ascis tereti-clavatis, breve stipitatis 52-65 \approx 8-9; sporidiis monostichis, ellipsoideis non constrictis, brunneis 8-10 \approx 4,5-5,5; paraphysibus filiformibus, ramosis.

Hab. in ramis decorticatis *Populi canadensis*, Luxemburg.

— *Var. Frangulæ* Feltg. l. c. — A typo differt peritheciis plerumque seriatis, macula stromatica circa ostiolum magis expansa, ascis $52-70 \times 6-9$, tereti-clavatis; sporidiis monostichis, non constrictis, biguttatis, brunneis $8-11 \times 5-6$ et paraphysibus non (?) ramosis. In ramis decorticatis *Rhamni Frangulæ*, Luxemburg.

10. *Didymosphæria subcorticalis* Feltg. Vorstud. Pilz. Luxemb. 1901, 2310 Nachtr. II, p. 173. — Peritheciis gregariis, immersis, ostiolo conico per epidermidem circum circa atratam erumpentibus; ascis . . . non visis; sporidiis ellipsoideis, utrinque tenuatis, bi-cellularibus, bi-guttatis, brunneis, $15-18 \times 5$.

Hab. in pariete interiore corticis *Salicis albæ*, Luxemburg.

11. *Didymosphæria nana* Rostrup — Syll. IX, p. 730. — *var. brachyspora* Sacc. Cfr. Harrim. Alaska Exped. Crypt. p. 30. — A typo differt; sporidiis paullo brevioribus, nempe $18-20 \times 6,5-7,5$ nec $25 \times 7-8$.

Hab. in foliis *Alni*, Port Vells Alaska (TRELEASE).

12. *Didymosphæria minuta* Niessl. — Syll. I, p. 715. — *var. Pseudo-Acori* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 175. — A typo differt, ascis minoribus nempe $34-40 \times 5-6$ sporidiisque multo minoribus, nempe $7-8 \times 2,5-3$, profunde constrictis, brunneolis, bi-guttulatis.

Hab. in caulibus et pedunculis *Iridis Pseudo-Acori*, Luxemburg.

13. *Didymosphæria Clementsii* Sacc. et D. Sacc. *Phorcys minutus* Clements in Bull. of the Torr. Bot. Cl. 1903, p. 84, nec *Did. minuta* Niessl. — Peritheciis solitariis, copiosis, raro subgregariis, primitus tectis, deinde epidermidem nigricantem pertusis, submembranaceis, depresso-globosis, ostiolo depresso, rugulosis, atro-brunneis, minutis $85-150 \mu$ diam.; ascis 6-8-sporis, irregulariter clavatis, brevibus, ad basim attenuatis $80 \times 16-18$; paraphysibus linearibus, paucis; sporidiis monostichis, sursum distichis, oblongo-ellipticis, uni-septatis, ad septum constrictis, levibus, brunneis, bi-guttulatis $13-16 \times 6-7$.

Hab. ad folia vetusta exsiccataque *Yuccæ glauçæ*, Cross Ruxton Amer. bor.

14. *Didymosphæria Feltgeni* Syd. Ann. Myc. 1903, p. 177, *D. Typhæ* Feltg. Vorstud. Lux. Nachtr. II, p. 172, nec Peck. — Peritheciis gregariis, immersis, globosis, basi applanatis, ostiolo breviter cylindraceo-conico per epidermidem erumpentibus, atro-brunneis 200

μ . diam.; ascis oblongo-clavatis, subsessilibus 21-26 \times 8-10, octosporis, paraphysibus filiformi-clavulatis, flaveolis, ascos superantibus; sporidiis inordinatis obovatis, inæqualiter bilocularibus, rectis vel curvulis brunneis 8-13 \times 2,5-3,5.

Hab. in calamo *Typhæ latifoliæ*, Luxemburg. — Contextus peritheciis atro-brunneus, parenchymaticus.

15. *Didymosphæria cypericola* P. Henn. Fungi Australien. II, p. 188. 2315

— Peritheciis sparsis, epidermide tectis dein erumpentibus, hemisphæricis, ostiolatis, membranaceis, atris, ca. 80-90 μ .; ascis cylindraceis, obtusiusculis, stipitatis, 8-sporis, 30-60 \times 3 $\frac{1}{2}$ -4 $\frac{1}{2}$; sporidiis oblique monostichis, oblongo-ellipsoideis, obtusiusculis, 1-2-guttulatis, medio 1-septatis haud constrictis, atro-fuscis.

Hab. in culmis *Cyperaceæ* cujusdam, Eumundi, S. Queensland, Australiæ (Doct. E. PRITZEL).

16. *Didymosphæria striatula* Penz. et Sacc. in Malpighia 1901, p. 227. 2316

Ic. fung. Jav. t. VIII, fig. 2. — Peritheciis in greges minutos suborbiculares 1,5-2 mm. long. digestis, peridermio atrato tectis, globulosis 250-350 μ . diam., nigris, dein ostiolo papillato erumpentibus; ascis cylindraceis, apice obtusis, crassiuscule et breviter noduloso-stipitatis, 85-95 \times 9-11, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis v. distichis, oblongo-fusoides, sæpe inæquilateris, utrinque acutiusculis 20-23 \times 7, uniseptatis, leviter constrictis, atro-olivaceis, tenuiter longitrorsum striatis.

Hab. ad culmos putres *Bambusæ*, Tjibodas Javæ. — Notis datis facile distinguenda species. Nota dignum quod in non paucis Ascomycetum speciebus javanicis sporidia longitudinaliter striolata occurrant, quod rarissime in europæis.

17. *Didymosphæria crastophila* (Niessl) Wint. — Syll. XI, p. 735. 2317

— var. *Brachypodii* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 175. — A typo differt ascis angustioribus et brevioribus, nempe 31-60 \times 5 sporidiisque ovato-ellipsoideis, constrictis 6-8 \times 2,5-3,5, brunneolis, loculo superiori paullo crassiore.

Hab. in culmis et vaginis *Brachypodii* silvatici Luxemburg.

18. *Didymosphæria arenaria* Mouton — Syll. IX, p. 736. — var. *macrospora* Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30. 2318

pl. IV, fig. 9. — Sporidiis 40 \times 13,5 (nec 30 \times 14), fuscellis.

Hab. in culmis *Airæ cæspitosæ* v. *brevifoliæ*, Shumagin Islands, Alaska (HARRINGTON).

19. *Didymosphæria Patellæ* Rehm in Hedw. 1903, p. (175). — Pe- 2319

ritheciis globulosis, parasitice in disco, sessilibus, glabris, 120 μ .

diam., superius subhyalinis, ad basim fuscidulis et hyphis hyalinis, simplicibus, septatis, rectis 3 μ . cr. vestitis; contextu parenchymatico; ascis cylindraceis apice rotundatis, 80-90 \times 9-10 octosporis; sporidiis dacryoideis, utrinque obtusis, medio septatis et subconstrictis, flavido-brunneis, 9-10 \times 6, monostichis; paraphysibus filiformibus 1 μ . cr., hyalinis.

Hab. parasitica in disco *Heterosphæriæ* *Patellæ* (Tode) Grev. Haugrav Gotland Sueciæ.

Endococcus Nyl. (1854) em. Species lichenicolæ, parasiticæ.

(Huc referri possunt species *Tichothecii* ascis 4-8-sporis, sporidiis phæodidymis præditæ. Cfr. Syll. IX, p. 723, sect. I).

20. *Didymosphæria stereocaulicola* (Linds.) Sacc. et D. Sacc. *Microthelia stereocaulicola* Linds. Obs. p. 537, t. XXIII, f. 30. — Peritheciis verrucarioides, papilliformibus, perexiguis, nigris, subimmersis; ascis 55-60 \times 15, obsolete paraphysatis; sporidiis obovatis, hyalinis, 1-septatis, demum brunneis, 12-14 \times 8.

Hab. in thallo *Stereocauli* paschalis in Britannia.

21. *Didymosphæria parietinaria* (Linds.) Sacc. et D. Sacc. *Microthelia parietinaria* Linds. Obs. p. 541, t. XXIII, f. 33. — Peritheciis minutis, nigris, punctiformibus v. papilliformibus, basi immersis; ascis non visis; sporidiis 1-septatis, brunneis, constrictis, 12-13 \times 4.

Hab. in thallo *Xanthoriæ* parietinæ in Britannia.

22. *Didymosphæria Sporastatiæ* (Anzi) Wint. — Syll. IX, p. 739 — *Polycoccum Sporastatiæ* Anzi, forma *Incongruæ* Arn. in Hedw. 1896, p. 337. — Peritheciis globosis nigris; ascis octosporis; sporidiis bicellularibus, fusoideis, brunneis.

Hab. in thallo *Lecideæ* incongruæ in Tirolia.

23. *Didymosphæria squamarioides* (Mudd) Sacc. et D. Sacc. *Sorothelia squamarioides* (Mudd) Zopf, Hedw. 1896, p. 353, *Sphæria* Mudd, Man. p. 130. — Peritheciis congestis, punctiformibus, nigris; ascis cylindraceis, 8-sporis, paraphysatis; sporidiis fusoideis v. ovoideis vel subpiriformibus vel subcylindraceis 16-21 \times 6-9, bicellularibus, brunneis.

Hab. in thallo *Placodii* gelidi in Britannia. — Est fere absque dubio eadem ac *Tichothecium squamarioides* Wint. — Syll. IX, p. 725 — ejus tamen sporidia multo minora describuntur.

24. *Didymosphæria fumosaria* (Leight.) Sacc. et D. Sacc. *Verrucaria*

fumosaria Leight. Brit. Lich. Fl. p. 493. — Peritheciis globoso-depressis semiimmersis, subdimidiatis; ascis octosporis aparaphysatis; sporidiis bicellularibus, brunneis, oblongis, 15-16 \times 7.

Hab. in thallo *Lecideæ fumosæ* in Britannia.

25. *Didymosphæria pseudocarpa* (Nyl.) Sacc. et D. Sacc. *Endococcus pseudocarpus* Nyl. Flora 1873, p. 204, Zopf Hedw. 1896, p. 328. — Peritheciis sursum brunneis, deorsum vix coloratis; ascis octosporis sporidiis bicellularibus, brunneis, 9-15 \times 5-6.

Hab. in thallo *Heppiæ Guepini* var. *nigrolimbatae* in Pyrenæis orient.

26. *Didymosphæria physciicola* (Nyl.) Sacc. et D. Sacc. *Mycoporum physciicola* Nyl. Fl. 1873, p. 299, Rehm Disc. p. 224. — Peritheciis globosis, nigris prominulis; ascis octosporis; sporidiis oblongo-ovoideis, bicellularibus, 10-13 \times 4-6, fuscis, septo constrictulis.

Hab. in thallo *Physciæ cæsiæ* in Gallia.

27. *Didymosphæria pellax* (Nyl.) Sacc. et D. Sacc. *Endococcus pellax* Nyl. Flora 1873, p. 204. — Peritheciis omnino brunneis nec infra pallidis; ascis 8-sporis; sporidiis bicellularibus brunneis 9-15 \times 5-6, oblongo-fusiformibus; paraphysibus nullis (?).

Hab. in thallo *Heppiæ obscurantis* in Pyrenæis orientilibus. — *Peraffinis D. pseudocarpæ*.

28. *Didymosphæria epicallospisma* (Wedd.) Sacc. et D. Sacc. *Tichothecium epicallospisma* Wedd. Nouv. rev. d. Lichens etc. 1873, p. 22, *Phæospora epicallospisma* (Wedd.) Arn. ap. Zopf, Hedw. 1896, p. 327 (*Verrucaria*). — Peritheciis nigris; ascis octosporis; sporidiis brunneis, bicellularibus.

Hab. in thallo *Gyalolechiæ callospismatis*, Blossac Gallia.

29. *Didymosphæria Gyrophoræ* (Arnold) Sacc. et D. Sacc. *Pharcidia Gyrophoræ* (Arnold) Zopf in Hedw. 1896, p. 327. — Peritheciis innatis, 100-160 \times 80-130; ascis aparaphysatis, latis, vix stipitatis, 4-8-sporis; sporidiis bicellularibus, tandem brunneis 13-17,9 \times 7-8.

Hab. in thallo *Gyrophoræ cylindricæ* in Germania.

30. *Didymosphæria opulenta* (Th. Fr. et Almq.) Sacc. et D. Sacc. *Endococcus opulentus* Th. Fr. et Almq. Botaniska Not. 1867, p. 109. — Peritheciis subglobosis, semi-immersis, atris, diam. circ. 100-150; paraphysibus in gelatinam difflexis; ascis subventricosus 8-sporis; sporidiis dyblastis, loculo inferiore angustiore, utrinque obtusis, nigricantibus, 24-26 \times 12-13; gelatina hymenæa, jodo leviter cærulescente.

Hab. in thallo *Polyblastiæ intercedentis* et *Lecideæ*

enteroleucæ v. latypeæ pr. Midtakläppen, Herjedalen Sueciæ (S. ALMQUIST.)

31. *Didymosphæria fusigera* (Th. Fr. et Almq.) Sacc. et D. Sacc. *En-* 2331
dococcus fusiger Th. Fr. et Almq. Botaniska Notiser 1867, p. 109.
 — Peritheciis subglobosis, semiimmersis, atris, diam. circ. 0,2 mm.;
 paraphysibus in gelatinam difflexis; ascis cylindrico-subinflatis 8-
 sporis; sporidiis fusiformibus, dyblastis, nigricantibus, 16-8 × 6;
 gelatina hymen. jodo vinose rubentē.

Hab. in thallo *Rhizocarpi geminati* prope Funnesdalen Herjedalen Sueciæ (S. ALMQUIST.).

32. *Didymosphæria Dannenbergii* Stein ap. Arn. Exs. n. 1514 (absque 2332
 diagnosi). — Peritheciis subsparis, innato-erumpentibus, globu-
 losis, nigris, nitidulis, 250-300 μ . diam.; ascis tereti-clavatis sub-
 sessilibus, filiformi-paraphysatis, octosporis, 86-96 × 16; sporidiis
 distichis ellipsoideo oblongis, utrinque rotundatis, 1-septatis, leviter
 constrictis, atro-fuliginis, vulgo rectis, 17 × 7-8.

Hab. in thallo *Pertusariæ lutescentis* ad truncos *Tiliæ Calvarienberg*, Rhön Germaniæ (DANNENBERG).

MASSARIELLA Speg. — Syll. I p. 716, IX p. 739, XI p. 314, XIV
 p. 555, XVI p. 503.

1. *Massariella Eriophori* (Feltg.) Sacc. et D. Sacc. *Phorcys Eriophori* 2333
 Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 162. — Pe-
 ritheciis sparsis, immersis, dein erumpentibus, globosis, papillatis,
 nigris, firmulis, 300-400 μ . diam.; ascis clavatis, apice rotundatis
 et crasse tunicatis, breve stipitatis 190-210 × 33-37, octosporis; spo-
 ridiis distichis, ellipsoideis, bicellularibus, constrictis, atro-brunneis,
 mucro obvolutis, 40-43 × 17-20; paraphysibus constricto-septatis,
 ascos superantibus.

Hab. in calamis *Eriophori angustifolii*, Luxemburg.

AMPHISPHERIA Ces. et De Not. — Syll. I p. 718, IX p. 741, XI
 p. 315, XIV p. 555, XVI p. 503.

1. *Amphisphæria Viæ-malæ* Rehm in Oest. Bot. Zeitschr. 1904, p. 81. 2334
 — Peritheciis in cortice v. ligni superficie denigrata innatis, spar-
 sis, subgregariis, globoso-conicis, papillula conoidea parvula, poro
 pertusis, demum basi immersis, fere sessilibus, glabris, atris, car-
 bonaceis, 300-350 μ . diam.; ascis cylindræis, apice rotundatis,
 medio septatis, haud constrictis, utraque cellula guttam magnam

oleosam includente, fuscis, 8-10 \times 3,5-4,5, monostichis; paraphysibus filiformibus 2 μ . cr.

Hab. ad ramulos siccos fere decorticatos Ligustri, Via mala montis Splügen, Graubünden Helvetiæ.

2. **Amphisphæria aterrima** Pat. in Duss Enum. Champ. Guadel. 1903, 2335 p. 71. — Peritheciis sparsis, subglobosis, ligno latissime nigrificato basi insculptis, ostiolo minuto papillato præditis, $\frac{1}{8}$ mm. d., carbonaceis, glabris; ascis cylindricis 160 \times 15, octosporis; sporidiis monostichis fusoides utrinque tenuatis, medio 1-septatis leniterque constrictis, biguttatis, 23 \times 10, brunneis; paraphysibus copiosissimis filiformibus, ramosis.

Hab. in trunco putri Richeriæ grandis, Basse-Terre Guadalupe (Duss).

3. **Amphisphæria irregularis** Rehm, Hedw. XLIV, p. 4, fig. 4. — 2336 Peritheciis epiphyllis, sessilibus, plerumque 6-10 congestis, rarius sparsis, conoideis, glabris, poro pertusis, atris, carbonaceis, ca. 150 μ . cr.; ascis clavatis 50-60 \times 12, octosporis; sporidiis clavatis, utrinque obtusis inæqualiter bicellularibus, cellula superiore $\frac{2}{3}$ brevior, ad septum non constrictis, subfuscis 12-15 \times 5-6, distichis; paraphysibus? ramosis.

Hab. in foliis Meliaceæ cujusdam, Blumenau Brasiliæ. — Affinis *Amph. Clusiæ*; sporidiis inæqualiter bicellularibus, ascis clavatis etc. dignoscitur.

4. **Amphisphæria Thujæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2337 1903, p. 269. — Peritheciis sparsis vel 2-3-approximatis, erumpenti-subsuperficialibus, globosis, atro-brunneis, carbonaceo-fragilibus 250-300 μ . diam., vertice applanatis rugulosis et minute papillatis; ascis clavatis vel subteretibus, apice rotundatis, longe tenuato-stipitatis 60-90 \times 5,5-8, filiformi-paraphysatis 4-6-8-sporis; sporidiis, submonostichis vel subdistichis, oblongo-ellipsoideis vel demum subcylindræis, bicellularibus, rectis curvulisve, utrinque obtusulis, medio fortiter constrictis, 4-6-guttulatis, pallide brunneo-nigricantibus, plerumque 13 \times 4-5.

Hab. in ramis corticatis Thujæ orientalis, Luxemburg. — *Amph. Thujæ* proxima.

5. **Amphisphæria Juniperi** Tracy et Earle, Plantæ Bakerianæ fasc. I, 2338 Fungi, p. 30. — Peritheciis sparsis, superficialibus, globosis, carbonaceis, subsparsis, 0,6 mm. circ. diam., ostiolo papillato donatis; ascis clavato-cylindræis, breve stipitatis 100-120 \times 20; paraphysibus filiformibus; sporidiis distichis, late fusiformibus, fu-

ligineo-pallidis, 1-septatis, constrictis, biguttulatis, utrinque subacutis 30-35 \times 10-12.

Hab. in ligno cæso Juniperi monosporiæ, Mancos, Colorado Amer. bor.

6. *Amphisphæria Populi* Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2339 Fungi p. 30. — Peritheciis dense sparsis, levibus, globosis, nigris. lucentibus, obscure poro pertusis, 250-300 μ . diam.; ascis cylindraceis, breve stipitatis 80-90 \times 8; paraphysibus numerosis, filiformibus; sporidiis monostichis ovalibus utrinque rotundatis, fuliginis, æqualiter 1-septatis, valde constrictis, 12 \times 6.

Hab. in ramis decorticatis Populi angustifoliæ, Mancos, Colorado Amer. bor.

7. *Amphisphæria juglandicola* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2340 1903, p. 270. — Peritheciis in areis dealbatis gregariis, basi ligno insculptis, globosis, leviter depressis, brunneis vel atro-brunneis 400-600 μ . diam.; ostiolo obtuse conico; ascis cylindraceis deorsum tenuato-stipitatis 77-108 \times 8, octosporis; paraphysibus filiformibus guttulatis, ascos superantibus ibique bifurcatis; sporidiis monostichis, tereti-ellipsoideis, late rotundatis, medio constricto 1-septatis, eguttatis, dilute brunneis 10-13 \times 5-6.

Hab. in ramis decorticatis Juglandis regiæ, Luxemburg.
Amph. salicicolæ proxima.

8. *Amphisphæria granulosa* E. et Ev. Journ. of Mycol. 1904, p. 169. 2341 — Peritheciis erumpenti-superficialibus, globosis vel depressoglobosis, granuloso-rugulosis circ. 500 μ . diam., dense sparsis, ostiolo minuto papillato; ascis cylindraceis, breve stipitatis 65-70 \times 4, obsolete paraphysatis; sporidiis monostichis, oblongis, 1-septatis, vix constrictis, pallide brunneis utrinque subattenuatis 10-12 \times 3-3.5.

Hab. in ligno vetusto quercino, ad terram, Lyndonville N. York Amer. bor. (C. E. FAIRMAN).

9. *Amphisphæria applanata* (Fries) Cesati et De Notaris — Syll. I, 2342 p. 718 et IX p. 741. — var. *Alaskæ* Sacc. Harrim. Alaska Exped. Crypt. p. 30 (ut typus). — Ascis angustioribus 105-115 \times 14-15; sporidiis 22-25 \times 8-8.5; loculo super. (!) majori et acutiori; peritheciis 500-600 μ . diam.

Hab. in ramis siccis, socia *Pirottae yakutatiana*, Yakutat Bay Alaska (TRELEASE).

GAILLARDIELLA Pat. — Syll. XIV p. 559, XVI p. 507.

1. *Gaillardiella Piptocarphæ* Rehm, Hedw. XLIV (1905) fig. 3. — 2343

— Peritheciis in epiphyllis c. 5 arcte congregatis sessilibus semiglobosis, poro pertusis, glabris, membranaceis, nigro-fuscis c. 100 μ .; ascis clavatis, apice rotundatis, crasse tunicatis, 45×12 , 8-sporis; sporidiis clavatis, utrinque obtusis, inæqualiter 2-cellularibus, cellula superiore $\frac{2}{3}$ brevior, ad septum haud constrictis, subfuscis, $10 \times 4-4.5$, distichis; paraphysibus filiformibus 3 μ . cr.

Hab. in foliis *Piptocarphæ oblongifoliæ*, Blumenau Brasilie (E. ULE). — Ob specimina manca dubium est an ad gen. *Gaillardiellam* pertineat species.

DIMEROSPORIOPSIS P. Henn. Hedw. 1901, p. (173) (Etym. a *Dimerosporio*, quocum habitu convenit). — Perithecia parasitica, membranacea, globoso-depressa, collabentia, setulosa, subiculo mycelico atro effuso matricis ramos deformante, conidia fusoido-clavata 1-3-septata brunnea generante insidentia. Asci elongati, paraphysati, octospori. Sporidia oblonga v. fusoida, 1-septata, e flavo fusca. — Hic *Dimerosporio* hinc *Neopecticiæ* affine genus.

1. *Dimerosporiopsis Engleriana* P. Henn. l. c. *Dimerosporium Englerianum* P. Henn. — Syll. XIV, p. 468.

NEOPECKIA Sacc. — Syll. IX p. 749, XI p. 317, XIV p. 558, XVI p. 506.

1. *Neopecticia argentinensis* Speg. in Ann. Soc. Cient. Arg. 1899, 2344 p. 269. — Laxe gregaria, subsuperficialis dense sordideque subcinereo-villosa; peritheciis sparsis v. laxe gregariis, ovatis, basi vix insculptis, apice obtusis, fusco-atris, membranaceis e carnosocoriacellis, contextu fuligineo, hyphis septulatis levibus, pallide olivascentibus v. fumosis $100-150 \times 5-7$, crispulis, vestitis; ascis cylindræis, sursum obtuse rotundatis, brevissime pedicellatis $125-135 \times 7-8$, octosporis, paraphysatis?; sporidiis recte monostichis, cylindræis, utrinque obtusiuscule rotundatis, $16-17 \times 6$, medio 1-septatis, subconstrictis, 1-guttulatis, levibus, pulchre fuligineis.

Hab. ad ramos dejectos putrescentes *Erythrinæ cristagalli* in insula Santiago prope La Plata Argentinæ.

DELITSCHIA Auersw. — Syll. I p. 732, IX p. 747, XI p. 317, XIV p. 558, XVI p. 506.

1. *Delitschia microspora* Oud. Hedw. 1882, vol. XXI, pag. 165. — 2345

Peritheciis et ascis non observatis; sporidiis oblongis utrinque rotundatis, septatis, vix constrictis, pallide brunneis 9-10 \approx 3,5.

Hab. in stercore caprino prope Harlem et la Haye Hollandiæ. — Peritheciis ascisque ignotis, species omnino dubia et aptius omittenda.

2. *Delitschia vulgaris* Griff. Mem. Torr. B. Cl. 1901, p. 104, t. 14, 2346
f. 4-6. — Peritheciis sparsis, immersis, subgloboso-piriformibus, 600-750 \approx 375-450, tenui-membranaceis e brunneo nigris, ostiolo cylindræo, curvato, pilis parvis, septatis longiusculis vestito; ascis 8-sporis, cylindræis apice rotundatis, breve stipitatis, 185-215 \approx 24-27; paraphysibus filiformibus septatis ascos superantibus; sporidiis oblique monostichis, 2-cellularibus, utrinque late rotundatis profunde constrictis, 27-30 \approx 13-16, e flavido opace atro-brunneis, strato prominenti, hyalino obductis.

Hab. in fimo bovino et equino, New York, Ft. Lee, Auburn Amer. bor.

3. *Delitschia excentrica* Griff. Mem. Torr. B. Cl. 1901, pag. 101, 2347
tab. XIII, fig. 7-9. — Peritheciis sparsis, immersis, ostiolo longo cylindræo, truncato vel rotundato, plerumque pilis brevibus septatis brunneis vestito, præditis, 750 \approx 300-500, tenui-membranaceis, atro-brunneis, opacis; ascis octosporis cylindræis, apice rotundatis, basi obtuse stipitatis 330-370 \approx 34-40; paraphysibus filiformibus obsolete septatis; sporidiis ellipsoideis utrinque excentrice acutatis, oblique 1-septatis constrictisque 45-50 \approx 21-24, e flavido atro-brunneis opacisque.

Hab. in fimo bovino, Austin et Biloxi, Amer. bor. (LONG, TRACY).

4. *Delitschia leporina* Griff. in Mem. Torr. B. Cl. 1901, pag. 101, 2348
tab. XIII, fig. 14-16. — Peritheciis sparsis, immersis 600-750 \approx 500 piriformibus vel breve cylindræis in ostiolum nigrum late truncatum rugosum et pilosum desinentibus, tenui-membranaceis, atro-brunneis, opacis; ascis octosporis clavatis, apice late rotundatis breve obtuseque stipitatis 240-295 \approx 30-34; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis distichis ellipsoideis utrinque acutiuscule rotundatis, oblique 1-septatis profundeque constrictis 40-65 \approx 16-20 e flavido atro-brunneo opacisque, strato hyalino prædistincto ad septum constricto.

Hab. in stercore cuniculorum, Ft. Lee, N. Y. Amer. bor. 2349

5. *Delitschia apiculata* Griff. Mem. Torr. B. Club. 1901, pag. 104, tab. 13, f. 10-13. — Peritheciis semiimmersis, sparsis v. in greges

parvos confertis, 375-500 \times 300-350, tenui-membranaceis, piriformibus; ostiolo papillato v. breve cylindraceo, curvato, nigro, setulis sparsis brevibus, acuminatis, brunneis 1-septatis vestito; ascis 8-sporis, clavatis, apice rotundatis longe stipitatis, 160-200 \times 32-38; paraphysibus filiformibus, copiosis, indistincte septatis, ascos multo superantibus; sporidiis biseriatis, ellipsoideis, utrinque rotundatis, bicellularibus, non constrictis, 28-34 \times 16-21, strato mucoso nullo præditis, sed utrinque apiculo hyalino triangulari auctis.

Hab. in caulibus *Salsolæ Tragi* sordibus fædatis, Aberdeen S. D. Amer. bor.

DELITSCHIELLA Sacc. n. g. (Etym. a *Delitschia*, cui affinis). — A *Delitschia* distinguitur ascis polysporis nec octosporis.

1. **Delitschiella polyspora** (Griff.) Sacc. et D. Sacc. *Delitschia poly-* 2350
spora Griff. Mem. Torr. B. Cl. 1901, p. 105, tab. 14, f. 1-3. — Peritheciis sparsis, immersis, subgloboso-piriformibus, subcoriaceis, atro-brunneis opacis, 1000 \times 650-750; ostiolo cylindraceo, truncato, nigro, recto v. curvulo variæ longitudinis; ascis 16-sporis, clavato-fusiformibus, apice rotundatis, breve stipitatis, 340-375 \times 85-100; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis tristichis vel inordinatis, ellipsoideis, vulgo utrinque rotundatis, 1-septatis, profunde constrictis, 52-62 \times 21-24, e flavido opace atro-brunneis, strato mucoso hyalino ad septum constricto prominenti obvolutis.

Hab. in fimo vaccino, Tucson Ariz. Amer. bor.

OTTHIA Nke — Syll. I p. 735, IX p. 752, XI p. 317, XIV p. 560, XVI p. 507.

1. **Otthia Clematidis** Earle, Plantæ Bakerianæ fasc. II, Fungi p. 13. 2351
— Peritheciis congestis, raro sparsis, nigris, carbonaceis, rugulosis 500 μ . diam., ostiolo pertusis, subimmersis, superne e stromate nigro emergentibus, interdum crustam latam efformantibus; ascis paraphysatis, subcylindraceis 90-120 \times 16-20; sporidiis irregulariter dispositis, ovalibus, utrinque subacutis, leviter constrictis, interdum curvulis, 1-septatis, brunneis 40 \times 8.

Hab. in ligno emortuo *Clematidis ligusticifoliæ*, Durangos South Colorado Amer. bor.

2. **Otthia Distegiae** Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fungi 2352
p. 29. — Peritheciis in soros oblongos congestis, nigris, rugosis, ostiolo minute papillato donatis, 250 μ . diam., erumpentibus; hy-

phis subiculi fuscis; ascis octosporis, clavatis, substipitatis, circ. $100 \approx 18$; paraphysibus filiformibus; sporidiis oblique monostichis vel subdistichis, obovatis, sæpe curvulis, fuligineis, 1-septatis, paululo constrictis, $25 \approx 8$.

Hab. in ramulis emortuis *Distegia involucrata*, Mancos, South Colorado, Amer. bor.

3. *Othia fendlericola* Tracy et Earle, Plant. Bak. II, p. 14. — Peritheciis immersis, dein suberumpentibus, 6-8 usque 20 in stromate dense congestis, e mutua pressione applanatis intense brunneo-nigris, rugosis 300-600 μ . latis, depressis, ostiolo pertusis; ascis cylindraceis $100 \approx 18$; paraphysibus filiformibus; sporidiis monostichis vel subdistichis, brunneis, fusiformibus, utrinque acutis, 1-septatis, non constrictis, $25 \approx 6$.

Hab. in ramis emortuis *Fendleræ*, Hermosa, South Colorado Amer. bor.

RHYNCHOSTOMA Karst. — Syll. I p. 730, IX p. 750, XI p. 317, XIV p. 559.

1. *Rhynchostoma piriforme* Annie L. Smith, Journ. Linn. Soc. XXXV, p. 16, tab. II, f. 16-18 (extr.) — Syll. XVI p. 1135 (nomen). — Peritheciis cæspitosis, basi confluentibus, omnino superficialibus, atris, globoso-piriformibus, rostro leniter curvulo, noduloso instructis, basi circa 1 mm. latis, fere 2 mm. longis; ascis cylindraceis, breviter stipitatis, 85 μ . long.; sporidiis oblique et irregulariter monostichis, oblongo-ovatis, 1-septatis, brunneis $10 \approx 4$.

Hab. ad ligna, in ins. Dominica Indiæ occid.

HENNINGSOMYCES Sacc. n. gen. (Etym. a clariss. et sollertissimo mycologo, prof. P. HENNINGS, berlinensi, in studio mycetum exoticorum in primis peritissimo). — Perithecia superficialia, facile secedentia (phyllogena) globulosa, membranacea, nigra, levia, in rostellum cylindraceum tenue producta, basi hyphis brevibus, radiantibus brunneis cincta, sed subiculo destituta. Ostiolum apice fimbriatum, conidiophorum; conidiis cylindraceis fuscis 1-pluriseptatis. Asci obovati, 8-spori, aparaphysati. Sporidia ovato-oblonga, 1-septata, hyalino-fuscidula. — Ab affini gen. *Rhynchomeliola* Speg. differt subiculo nullo, ostiolis apice conidiophoris etc.

1. *Henningsomyces pulchellus* Sacc. n. sp. — Peritheciis hypophyllis, punctiformibus, hinc inde gregariis, 60-85 μ . diam., globulosis,

omnino superficialibus, basi hyphis subsimplicibus, septulatis, brevissimis cinctis, nigris, contextu laxe parenchymatico, brunneo; rostello cylindrico, recto, $180-190 \approx 18-20$ ex hyphis filiformibus, longitudinalibus, $2,5 \mu$. crassis, arcte conglutinatis formato, apice ex hyphis relaxatis fimbriato, conidiophoro; conidiis cylindraceutis rectiusculis, 2-3-septatis, non constrictis, dilute fuscis, $22 \approx 3$; ascis ovato-oblongis, apice rotundatis, brevissime stipitatis vel subsessilibus, $40-45 \approx 20-25$, octosporis, aparaphysatis; sporidiis 2-3 stichis, oblongis, utrinque rotundatis, rectis curvulisve, $20-24 \approx 8$, ex hyalino fusciculis.

Hab. in pag. infer. foliorum languidorum *Byrsonimæ* seri-ceæ, Rio de Janeiro, Maná Brasilæ 1899 (E. ULE). — Interdum adsunt pycnidia minuta globulosa, sporulis fusoideis curvulis, hyalinis foeta.

XYLOBOTRYUM Pat. — Syll. XI p. 319, XVI p. 510.

1. *Xylobotryum Dussii* Pat. in Duss. Enum. Champ. Guadal. 1903, 2356 p. 77. — Minute cæspitosum, 8-10 mm. long., e ramulis gracilibus, coriaceis, rugulosis, pluries divisis, intricatis, perithecio singulo v. binis terminatis; ascis longe stipitatis, $30-35 \approx 7-8$ (p. sporif.); sporidiis oblongis, $7-9 \approx 3-3,5$, brunneis, 1-septatis, non vel vix constrictis.

Hab. ad ligna putrida, Deshaies Guadalupæ (Duss). — Habitus *Kretzschmarie*; affine *X. andino* sed habitu, sporidiis minoribus etc. diversum.

XYLOCERAS Annie L. Smith, Journ. Linn. Soc. XXXV (1901) p. 16. Syll. XVI, pag. 1135 (nomen) (Ety. *xylo* pro xylaria et *ceras* cornu). — Est *Xylaria* phæodidyma, corniformis, simplex, subsessilis, peritheciis exsertis. — A *Xylobotryo* non satis diversum genus videtur.

1. *Xyloceras Elliotti* Annie L. Smith l. c. tab. III, fig. 1-5. — Stro- 2357 matibus cæspitosis, apice attenuatis, 1 cm. altis, 1-2 mm. latis, basi et apice sterilibus; hyphis internis circa 10μ . latis, brunneis; peritheciis subglobosis, circa 280μ . latis; ascis cylindraceuto-clavatis, stipite 42μ . longo, basi leviter dilatata, parte sporif. 35μ . longa; sporidiis ovatis $10 \approx 4$; paraphysibus filiformibus.

Hab. ad ligna, prope flum. Caste Bruce, Dominica Indiæ occ.

MELANCONIELLA Sacc. — Syll. I, p. 740, IX p. 753, XIV p. 560, XVI p. 509.

1. *Melanconiella leucostroma* (Niessl) Sacc. — Syll. IX, p. 754. — 2358
f. *Piri* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 119. —
A typo (in Fago) recedit disco albo-cinereo; ascis clavatis (nec
elliptico-oblongis) longioribus, 80-95 \times 10-11 sporidiisque minori-
bus 15-19 \times 5-6, vulgo curvulis, non appendiculatis.

Hab. in ramis siccis *Piri* communis, Luxemburg.

2. *Melanconiella nyssagena* Ell. et Ev. in Journ. of Mycol. 1902, 2359
vol. 8, pag. 18. — Stromatibus corticalibus circularibus, depresso-
globosis, circ. 2 mm. diam., papillatis, superne erumpentibus, ni-
gris, levibus, ostiolo rotundo præditis; peritheciis circinantibus,
globosis, nigris, intus lucidis, 500 μ . diam.; sporidiis monostichis,
ellipticis v. oblongo-ellipticis, 1-septatis, constrictis, olivaceo-brun-
neis, 30-40 \times 12-20, plerumque 12-15 μ .

Hab. in ramis emortuis *Nyssæ multifloræ*, Newfield Ame-
ricæ borealis.

VALSARIA Ces. et De Not. — Syll. I p. 741, IX p. 755, XI p. 318,
XIV p. 560, XVI p. 509.

1. *Valsaria Tiliæ* De Not. Sfer. ital. p. 58, tab. 55. — Peritheciis 2360
sæpius quaternio numero fasciculatis et cortice insculptis, ovoideis
v. sphæroideo-depressis in collum crassum productis, ostioli trunc-
catis angulosisque vel pyramidatis 600-750 μ . crassis, atris, nu-
cleo pallido; ascis crasse clavatis, perfecte hyalinis, sessilibus,
apice rotundatis; paraphysibus filiformibus longioribus, guttulis
obvallatis; sporidiis monostichis, oblongis bilocularibus 1-septatis,
vix constrictis-badio, fuscis 42-48 \times 18-20, in quoqueasco 2-6.

Hab. in cortice levigato *Tiliæ microphyllæ*, prope Tro-
baso Italiæ bor. — Jam conjunxeram cum *Hercospora Tiliæ*, sed
reapse, observante cl. Oudemans in Rev. Mycol. 1902, ab ea
valde recedit.

2. *Valsaria Kriegeriana* Rehm in Krieger Fung. Saxon. exs. n. 1617, 2361
(1901) Hedw. 1903, pag. (159). — Stromatibus sparsis v. grega-
riis, minutis e basi rotundata leviter emergentibus et peridermio
tectis; peritheciis in quoque stromate 4-8, circulariter dispositis,
brunneo-nigricantibus 250 μ . diam., ostioli brevibus discum brun-
neo-nigrum erumpentem formantibus; ascis cylindræis longe
stipitatis, octosporis, 70-90 \times 5-8, p. spor.; sporidiis ellipsoideis utrin-

que rotundatis, medio constricto 1-septatis, hyalinis, demum pallide brunneis 7-12 \approx 4,5-6, bi-quadri-guttatis.

Hab. in ramis siccis Sambuci nigræ prope Königstein Germaniæ (W. KRIEGER). — *Vals. staphylinæ* et *Vals. cornicolæ* affinis.

3. **Valsaria Magnoliæ** E. et Ev. Journ. of Mycol. 1904, p. 170. — 2362

Stromate corticali effuso, corticem interiorem nigrificante; peritheciis immersis dein semierumpentibus, intus albis 250 μ . diam., inæqualiter sparsis vel valsiformiter confertis vel seriatis, mox deciduis; ascis cylindraceis, subsessilibus paraphysatis 80-100 \approx 10-12, subinde 100-150 \approx 10-12; sporidiis oblongo-ellipsoideis, brunneis, constricto 1-septatis, 18-23 \approx 8-10, obliquis in ascis brevioribus, rectis in ascis longioribus.

Hab. in truncis emortuis Magnoliæ spec. cultæ, London Canada (DEARNESS).

4. **Valsaria (Phæosperma) microspora** E. Rostr. Norske Ascom. 1904, 2363 p. 23 (Vidensk. Skrift.). — Stromate effuso, endoxylo, nigro; peritheciis gregariis; ascis cylindraceis, 8-sporis; sporidiis monostichis, ovoideis v. oblongis, didymis, 7-8 \approx 5, fuscis, loculo altero paullo angustiore.

Hab. ad ramos Tiliæ, Ulmi, Quercus in Norvegia.

5. **Valsaria (Phæosperma) latitans** Sacc. in Atti Congr. bot. Palermo 2364

1902, p. 52. — Peritheciis hinc inde laxè gregariis ligno supra fusco-maculoso immersis, globosis, membranaceis, 250 μ . d., ostiolo punctiformi vix perforante; contextu perithecii tenuissimo; ascis tereti-clavatis, apice rotundatis brevè crasseque stipitatis, 110-140 \approx 20-22, octosporis; paraphysibus copiosissimis filiformibus, hyalinis; sporidiis oblique monostichis brevè fusoideis, sæpius inæquilateris, utrinque obtuse tenuatis, constricto-1-septatis, grosse bi-guttatis, fuliginis, 30-36 \approx 10-11.

Hab. in ligno carioso salicino v. populino diu aqua immerso, Rigny sur Arroux Galliæ. — Ab affini *Valsaria cariei* ostiolo punctiformi, ascis sporidiisque majoribus videtur satis diversa.

Sect. 6. Hyalophragmiæ.

I. *Eu-Sphærulina*: in plantis phanerogamis.

1. **Sphærulina Diapensiae** Rostr. Islands Svampe in Bot. Tidsskrift, 2365
1903, vol. 25, p. 306. — Peritheciis aggregatis, minimis, innato-prominulis; ascis crasse piriformibus, apice valde incrassatis, 38-40 \times 20; sporidiis cylindraceo-fusoideis, rectis v. leniter curvulis, utrinque obtusiusculis, 3-4-septatis, 4-guttulatis, 25-30 \times 7-8, hyalinis.

Hab. in pedunculis, sepalis, capsulis *Diapensiae lapponicae* in Islandia.

2. **Sphærulina Epigææ** P. Henn. in Notizblatt des Kgl. bot. Gart. 2366
Berl. 1900, n. 22, p. 37. — Peritheciis epiphyllis, innato-prominulis hemisphæricis, poro pertusis, atris ca. 150-180 μ . diam., in maculis fusioideis sparsis v. gregariis; ascis basi fasciculatis, curvulis, clavatis, vertice crasse tunicatis, obtusis 35-45 \times 15-18, octosporis, aparaphysatis; sporidiis subdistichis, oblongis v. subfusioideis, obtusiusculis v. acutiusculis 4-guttulatis (an deinde 3-septatis?) 18 \times 4, hyalinis.

Hab. in foliis emortuis *Epigææ repentis*, in horto botanico Berolinensi Germaniæ.

3. **Sphærulina Oxalidis** Rehm, Ann. Mycol. 1904, p. 177. — Peritheciis gregariis, sub peridermio plus minusve denigrato et hemisphærice elevato nidulantibus, globosis, glabris, papillula conoidea tenui subprominente, parenchymatice contextis, fuscis 0,25 mm. diam.; ascis elongato-subfusiformibus, vix stipitatis 40-45 \times 9 octosporis; sporidiis fusioideis, rectis, 3-septatis, hyalinis 10-12 \times 2,5-3 distichis; paraphysibus nullis.

Hab. ad caules emortuos *Oxalidis strictæ*, Texas America borealis.

4. **Sphærulina Pruni** Mc. Alp. Fungus Stone-fr. trees diseases, Melb. 2368
1902, p. 113, fig. 173-175. — Peritheciis minutis, nigris, punctiformibus, sparsis vel subcongestis, erumpentibus, globosis, membranaceis, 120 μ . diam., ostiolo papillatis; ascis breve stipitatis, oblongis, octosporis, aparaphysatis 45-50 \times 10; sporidiis distichis, hyalinis oblongo-ovatis, rectis, 3-septatis, ad septa non constrictis, 15-16 \times 4,5-5.

Hab. in ramulis emortuis *Amygdali communis*, Myrning Victoria Australiae. — *Sph. intermixta* Sacc. affinis.

5. **Sphærulina Spartii** v. Höhn, Ann. Myc. 1904, p. 43. — Ramicola; 2369

peritheciis gregariis, tectis, nigris, globulosis, 100-120 μ . latis, ostiolis 15-20 μ . latis, obsolete papillatis instructis; tunica crasse membranacea, atro-brunnea, contextu celluloso; ascis late clavatis, crassiuscule tunicatis, obtusis, subsessilibus, octosporis, 50-65 \times 10-11, apapophysatis; sporidiis di-tristichis, hyalinis, bacillaribus, rectis vel subcurvulis, utrinque rotundatis, triseptatis, 18-35 \times 2 $\frac{1}{2}$ -4.

Hab. in ramulis siccis Spartii juncei ad Selenika Dalmatiæ. — An sporidia normalia variant longitudine a 18 ad 35 μ . vere dubitandum!

6. **Sphærulina Sacchari** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 2370 p. 62. — Maculis rotundatis v. oblongis confluentibusque pallidis exaridis, zona rufo-brunnea cingulatis; peritheciis hypophyllis sparsis vel gregariis punctiformibus, immersis, dein erumpentibus, fusco-membranaceis, poro pertusis, 80-100 μ . diam.; ascis fasciculatis, apapophysatis, clavatis, obtuse rotundatis, basi breve pedicellatis, 8-sporis, 50-65 \times 12-14; sporidiis oblique monostichis vel subdistichis, oblonge fuscoideis vel clavatis, 3-septatis, constrictiusculis, 4-guttulatis, hyalinis, 15-20 \times 3 $\frac{1}{2}$ -4.

Hab. in foliis Sacchari officinarum culti, Leticia, Rio Amazonas, Perù.

7. **Sphærulina microthyrioides** Rehm Hedw. XLIV. — Peritheciis ple- 2371 rumque hypophyllis, sessilibus, subgregariis, lenticularibus, poro pertusis, glabris, parenchymatice fusce contextis, nigris, 120-150 μ . diam.; ascis subglobosis, 25-30 μ . diam., 8-sporis; sporidiis ellipsoideis, interdum subcurvatis, 3-septatis, hyalinis, 12 \times 4; paraphysibus hyalinis, ? ramosis.

Hab. in foliis graminis, Blumenau Brasiliæ (E. ULE). — Vix visibilis; perithecia non erumpentia, paraphyses distinctæ; tamen nonnisi ad *Sphærulinx* genus species spectare videtur.

8. **Sphærulina Maydis** Henn. in Hedw. 1902, pag. 302. — Maculis 2372 rotundatis, angulatis, pallidis, exaridis, zona brunneola cinctis; peritheciis gregarie sparsis, epidermide tectis, globosis, dein vertice erumpentibus, flavo-brunneis, membranaceo-cellulosis, ca. 60-80; ascis clavatis, apice rotundato-tunicatis, basi attenuato-curvatis, octosporis 40-55 \times 10-14; sporidiis distichis, fuscoideis vel clavatis, 3-septatis, paullo constrictis, 10-16 \times 3.5, hyalinis.

Hab. in foliis Zeæ Maydis in horto botanico S. Paulo Brasiliæ.

II. *Pharcidiella* Sacc.: species lichenicolæ *).

9. **Sphærulina endococcoidea** (Nyl.) Sacc. et D. Sacc. *Verrucaria endococcoidea* Nyl. Flora 1865, p. 356. — Peritheciis semiimmersis, 3273
nigris 120-160 μ . diam., supra convexulis; ascis aparaphysatis, jodo rubro-tinctis, octosporis; sporidiis ellipsoideo-oblongis, 3-septatis, 16-18 \times 6-7, hyalinis.

Hab. in thallo *Rhizocarpi excentrici* in Ben Lawers Scotiæ.

10. **Sphærulina Amphilomatis** (Jatta) Sacc. et D. Sacc. *Arthopyrenia Amphilomatis* Jatta Lich. Ital. merid. 1889, pag. 206, *Cyrtidula* 2374
Amphilomatis Jatta Syll. Lich. ital. p. 496. — Peritheciis immersis, minutissimis, atris; ascis cylindraceis octosporis; sporidiis cuneiformibus, 1-3-septatis, 4-guttulatis, uno apice tenuatis, curvulis, 15-18 \times 5-6; paraphysibus obsoletis.

Hab. in thallo *Gasparriniæ murorum* in Italia centr. et merid.

METASPHÆRIA Sacc. — Syll. II p. 156, IX p. 825, XI p. 333, XIV p. 582, XVI p. 529.

I. *Eu-Metasphæria*: in plantis vascularibus.

1. **Metasphæria ocellata** (Niessl) Sacc. — Syll. II p. 157. — f. *Hircini* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 224. 2375
— A typo recedit ascis majoribus, crassius clavatis et longius stipitatis 90-108 \times 11-14, nec non sporidiis submonostichis et paraphysibus ramosis constricto-septatis.

Hab. in caulibus siccis *Hyperici hircini*, Luxemburg.

2. **Metasphæria Hyperici** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2376
1903, p. 239. — Peritheciis sparsis, immersis, papilla minutissima, tantum emergentibus, nigris; ascis tereti-clavatis, breve stipitatis 91 \times 7-8; sporidiis 1-distichis, fusiformibus, utrinque obtusulis, rectis curvulisve, 3-septatis, medio profunde constrictis, 4-guttatis et minute utrinque 1-guttulatis, hyalinis, 21 \times 5.

Hab. in caulibus siccis *Hyperici hircini*, Luxemburg.

3. **Metasphæria Magnoliæ** (Almeid. et S. Cam.) Sacc. *Sporoctomorpha* 2377
Magnoliæ Alm. et S. Cam. in Revista Agronomica de Portugal,

*) Huc ducendæ sunt species hyalophragmiæ *Pharcidiæ*, jam descriptæ, nempe: *Sphærulina* (*Pharcidiella*) *Schærerii* (Mass.) Sacc. *S. parvipuncta* (Stein) Sacc., *S. Arthoniæ* (Arn.) Sacc. — Syll. IX, p. 676 (omnes species sub *Pharcidia*).

1903, n. 3, pag. 90, tab. IX, fig. 4-6. — Peritheciis epiphyllis, glubulosis, atris, poro pertusis 150-200 μ . diam.; ascis obelavatis, substipitatis, octosporis $85-90 \approx 17-20$; paraphysibus numerosissimis, longiusculis, acicularibus; sporidiis distichis octoformibus, 3-septatis, utrinque rotundatis, in partes inæquales septo medio valde constricto divisas $18-20 \approx 6-7,5$, hyalinis.

Hab. ad folia Magnoliæ spec., Bemfica prope Lisboa Lusitaniæ (C. JELESIAS VIANNA). — Gen. *Sporoctomorpha* Alm. et Cam. non satis differt a *Metasphæria*, immo *Met. papulosa* et *anisometra* peraffines videntur.

4. **Metasphæria Angelicæ** Rostr. Islands Svampe in Bot. Tidsskrift 2378 1903, vol. 25, p. 306. — Peritheciis gregariis, erumpentibus, globoso-depressis, 300 μ . diam.; ascis cylindraceis, paraphysatis $115-130 \approx 10-12$; sporidiis oblique monostichis, oblongo-fusoideis, hyalinis, 3-septatis, loculo subultimo crassiore, rectis vel curvulis, $20-22 \approx 6-8$.

Hab. in caulibus siccis Angelicæ silvestris in Islandia.

5. **Metasphæria Hederæ** (Sow.) Sacc. — Syll. II, p. 169. — f. **cor-ticola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 232. — A typo foliicola vix differt peritheciis atro-brunneis, ascis varie flexis $70-80 \approx 13-15$; sporidiis medio fortiter constrictis, paullo crassioribus, $18-21 \approx 5-6$, maturis dilute flavidis.

Hab. in cortice ramorum Hederæ Helicis, Luxemburg.

6. **Metasphæria acerina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2380 1903, p. 228. — Peritheciis epidermide omnino tectis, papilla minuta depressa erumpentibus, lenticularibus, 500 μ . diam., nigris; ascis clavatis, stipitatis, paraphysibus filiformibus, ramosis superantibus copiose obvallatis, $120-140 \approx 17-20$, octosporis; sporidiis 1-2-stichis, elliptico-fusoideis, obtusis, medio constricto-1-septatis, loculis biguttulatis tenuiterque 1-septatis, crasse tunicatis $20-26 \approx 7-8,5$.

Hab. in ramis corticatis Aceris campestris, Luxemburg.

— *Met. vulgari* proxime affinis, sed perithecia majora etc.

7. **Metasphæria errabunda** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2381 1903, p. 235. — Peritheciis sparsis vel gregariis, hemisphaericis, cortice innato-subsuperficialibus 70-150 μ . diam., nigris, papilla tenuissima præditis; ascis fasciculatis, crasse fusoideis, brevi et crasse stipitatis, octosporis $55-75 \approx 10-12$, paraphysibus superantibus, filiformibus obvallatis; sporidiis 1-2-stichis, fusiformibus ob-

tusiunculis, subrectis 3-septatis, non constrictis, 4- vel pluri-guttulatis, hyalinis 16-22 \times 3-5.

Hab. in cortice sicco ramorum Buxi sempervirentis, Thujae orientalis et Ilicis Aquifolii, Luxemburg. — *Metasph. Ferulae* et *Met. Bambusae* affinis. Sporidia subinde dilute flavida.

8. **Metasphæria epidermidis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2382
III, 1903, p. 230. — Peritheciis gregariis, epidermide nidulantibus et cuticula atrata tectis, hemisphaericis, nigro-brunneis, 100-200 μ . diam., papilla obsoleta; ascis fasciculatis, fusoides, stipitiformi-attenuatis, octosporis 44-68 \times 7-10, filiformi-paraphysatis octosporis; sporidiis 2-3-stichis, tereti-ellipsoideis, utrinque obtusis, rectis curvulisve, crasse 4-guttatis (an demum septatis?) non constrictis, hyalinis, 16-18 \times 3,5-5.

Hab. in cortice Rhamni Frangulae, Luxemburg. — *Met. corticolae, depressae* etc. affinis.

9. **Metasphæria Ulicis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2383
1903, p. 234. — Peritheciis sparsis, omnino immersis v. vertice obtuse papillato emergentibus, subinde longiuscule cylindrico-papillatis, globosis, nigris, 250-350 μ . diam.; ascis tereti-clavatis, tenui- et incurvo-stipitatis, octosporis, paraphysatis 150 \times 10; sporidiis distichis, elliptico-fusoides, obtusis, curvulis, triseptatis, ad septa, praecipue medium, fortiter constrictis 4-6-guttulatis, 22-27 \times 5,5-8.

Hab. in ramis corticatis Ulicis europaei, Luxemburg. — *Metasph. sepincolae* affinis.

10. **Metasphæria Comari** P. Henn. Hedw. 1903, p. 218. — Peritheciis subcutaneis, sparsis, dein epidermide rimosa vertice suberumpentibus, hemisphaericis, obtuse, ostiolatis, atris; ascis cylindraco-subfusoides vel subclavatis, apice obtusis, octosporis, 70-90 \times 7-9, paraphysibus copiosis, filiformibus, septatis, ca. 2 μ . cr., hyalinis; sporidiis distichis v. oblique monostichis, oblonge fusoides, rectis v. subcurvulis, utrinque acutis, primo 4-guttulatis, dein 1- deinde 3-septatis, ad septa, praecipue medium constrictis, hyalinis, 18-23 \times 4-5.

Hab. in caulibus emortuis Comari palustris in horto botanico Berolini Germaniae.

11. **Metasphæria Opulastri** Clements in Bull. of the Torr. Bot. Cl. 2385
1903, p. 84. — Peritheciis sparsis, erumpentibus, nudis, globosis, vix ostiolatis, brunneis, 200-300 μ .; ascis octosporis, clavatis, jodo

non cærulescentibus, 60-75 \times 10; paraphysibus clavulatis, hyalinis 2-3 μ . lat. ad apicem; sporidiis fusiformibus, acutis, plerumque 3-septatis, rectis vel curvulis, hyalinis, 22-25 \times 3-4.

Hab. ad ramulos vetustos *Opulastri monogynæ*, Minehaha Amer. bor.

12. *Metasphæria Carveri* Ell. et Ev. in Journ. of Mycol. 1902, p. 68. 2386

— Peritheciis dense sparsis vel gregariis, raro cæspitoso-congestis, suberumpentibus, generaliter epidermide velatis, depresso-hemiphæricis, in sicco collapsis 120-200 μ . diam.; ascis oblongis, brevistipitatis 50-55 \times 8-12; paraphysibus evanescentibus; sporidiis distichis, oblongo-cylindræis, parce curvatis, hyalinis 15-20 \times 4-5, utrinque obtusis, granulosis 3-4-nucleatis (dein 2-3-septatis?).

Hab. in ramis emortuis *Sesami orientalis*, *Glycines hispida*, *Cassia Toræ* et *Mucunæ utilis*, Alabama Amer. — Habitus fere *Vermiculariæ*.

13. *Metasphæria vulgaris* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2387

II, p. 168, et III, p. 225. — Peritheciis gregariis, globoso-depressis, tectis 300-400 μ . diam., ostiolo papillato erumpente; ascis clavatis 70-115 \times 10-14; sporidiis distichis, crasse fusoides, utrinque rotundatis, triseptatis, ad septum medium fortiter constrictis, 4-guttatis, hyalinis 15-18 \times 5, cellula secunda crassiore; paraphysibus filiformibus ascum superantibus.

Hab. in ramis corticatis *Aceris campestris*, *Platani orientalis*, *Cratægi Oxyacanthæ*, *Syringæ vulgaris*, *Populi italicæ*, *Pruni Padi*, *Viburni Opuli*, *Tiliæ*, *Rubi*, *Corni*, *Fagi* et *Alni*, Luxemburg. — Affinis *Met. sepincolæ* sed peritheciis distincte papillatis, ascis sporidiisque minoribus satis distincta.

14. *Metasphæria Jaceæ* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2388

1903, p. 239. — Peritheciis gregariis v. sparsis, subcutaneo-erumpentibus, globoso-depressis 200-300 μ . diam., atro-brunneis, ostiolo minuto, conico; ascis clavatis, breve stipitatis, subinde cylindræis longe stipitatis, filiformi-paraphysatis, 6-8-sporis, 90-110 \times 13-16; sporidiis 1-2-stichis, oblongo-ovoideis vel subclavatis, rectis curvulisve, 4-septatis, constrictis obtusis, medietate inferiori angustiore et longiore 1-2-septata, hyalinis v. tandem dilutissime brunneolis, minute guttulatis, 22-27 \times 5,5-7.

Hab. in caulibus siccis *Centaureæ Jaceæ*, Luxemburg. — Perithecia quædam vertice setulosa et sporidia brunneola: an species diversa?

15. *Metasphæria Petasitidis* Feltg. Vorstud. Vorst. Pilz. Luxemb. 2389
Nachtr. III, p. 238. — Peritheciis epidermide innatis et per cuticulam conspicuis, demum subliberis, globoso-depressis, ostiolo breviter cylindraceo emergente; ascis . . . non visis; sporidiis obtuse fusiformibus, rectis curvulisve, medio constricto-1-septatis, plerumque 4-guttulatis et tandem 3-septatis, hyalinis, $18-24 \times 5-5,5$.
Hab. in petiolis siccis Petasitidis officinalis, Luxemburg.
16. *Metasphæria Silphii* Ell. et Ev. in Journ. of Mycol. 1903, p. 167. 2390
— Peritheciis gregariis, subcuticularibus, ovatis, rugulosis, ostiolo papillatis, dein collapsis, cyathiformibus, $150-200 \mu$. diam.; ascis cylindraceis vel clavato-cylindraceis $45-55 \times 6-7$, subpedicellatis, paraphysatis; sporidiis distichis, fusoideo-oblongis 2-3-septatis, ad septa constrictis, $12-16 \times 3,5-4$, subbrunneis.
Hab. in caulibus emortuis Silphii integrifolii, Rooks Co., Kansas Amer. bor.
17. *Metasphæria sanguinea* Ell. et Ev. in Journ. of Myc. 1902, 2391
p. 68. — Peritheciis subcuticularibus, sparsis vel 2-3 congestis, membranaceis, dein collabentibus circ. 200μ . diam., sanguineo-rubrescentibus, ostiolo papilliformi donatis; ascis clavato-cylindraceis $50-70 \times 7-8$, paraphysatis; sporidiis (raro monostichis) distichis constricto-ellipticis vel subfusoides, hyalinis 4-nucleatis, 3-septatis, $15-18 \times 14$.
Hab. in caulibus emortuis Helenii tenuifolii, Alabama Amer.
18. *Metasphæria Cirsii* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2392
1903, p. 239. — Peritheciis gregariis vel sparsis, immersis, globoso-depressis, $100-200 \mu$. diam., nigris, papilla globulosa emergente; ascis cylindraceis breve stipitatis $122-136 \times 7-8$; paraphysibus filiformibus, superatis, octosporis; sporidiis monostichis, filiformibus, obtusis, rectis vel curvulis, 3-septatis, septo medio evidentiore ibique constrictis, hyalinis, 6-guttulatis, $21-26 \times 5-6$.
Hab. in caulibus siccis Cirsii arvensis, Luxemburg. — Præcipue ascis anguste cylindraceis distinguenda species.
19. *Metasphæria Petrææ* Pat. in Duss Enum. Champ. Guadel. 1903, 2393
p. 71. — Peritheciis solitariis, sparsis, punctiformibus, nigris, cellulosis, molliusculis, sub cute dein radiatim fissa nidulantibus; ascis cylindraceis, in stipitem attenuatis, 105×10 , octosporis, filiformi-paraphysatis; sporidiis fusoides, rectis, incoloribus, medio constrictis, utrinque acutatis, obscure 1-septatis et 6-8-guttulatis, 20×6 .
Hab. in foliis emortuis Petrææ volubilis, Ravine-Soufflée

Guadalupæ (Duss). — Subinde sporidia sunt medio inflatula. Jodi ops nulla.

20. *Metasphæria Liriodendri* Pass. — Syll. IX, p. 831. — f. *Catalpæ* 2394
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 233. — A typo differt peridermio non elevato; ascis paullo crassioribus et valde ludibundis, 80-124 \times 10-14; sporidiis 19-23 \times 4-5.

Hab. in ramis corticatis Bignoniae Catalpæ, Luxemburg. — A *Metasph. vulgari* differt sporidiis angustioribus, nempe 4-5 μ . nec 5-7 μ . cr.

21. *Metasphæria depressa* (Fuck.) Sacc. — Syll. II, pag. 166. — f. 2395
caulium Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 225. — A typo differt præter matricem, peritheciis atro-brunneis; ascis angustioribus 120-125 \times 8-10 et sporidiis quoque angustioribus 19-22 \times 5,5.

Hab. in caulibus siccis Origani vulgaris, Luxemburg.

22. *Metasphæria Nicolai* (Bubák) Sacc. et D. Sacc. *Leptosphaeria Nico-* 2396
lai Bubák, Pilzfl. Montenegr. 1903, p. 10. — Peritheciis cortice nidulantibus, minutis, membranaceis, nigris, poro minuto pertusis, 50-100 μ . diam., contextu subparenchymatico; ascis clavatis, curvulis, 50-80 \times 15, octosporis; paraphysibus filiformibus, 80 μ . long. hyalinis; sporidiis breve cylindraceis, utrinque rotundatis, 17,5 \times 6,5, hyalinis, 4- raro 3-septatis, distichis.

Hab. in caulibus Salviae officinalis anni præcedentis, Bukovice pr. Cetinje, Montenegro. — A *M. Salviae* omnino diversa.

23. *Metasphæria Ipomœæ* Ell. et Ev. in Journ. of Mycol. 1902, p. 63. 2397
— Peritheciis sparsis v. 2-3 congestis, subcuticularibus dein erumpentibus, generaliter collapsis 250-300 μ . diam., ostiolo papillato præditis; ascis clavatis, breve stipitatis 75-90 \times 10-14; paraphysibus filiformibus; sporidiis monostichis vel distichis, elongato-ovatis vel late fusideo-clavatis, 3-4-septatis, ad septa constrictis, penultimo septo valde constrictis, 15-25 \times 8-12.

Hab. in caulibus emortuis Ipomœæ, Alabama Americæ. — Ab 2398
affini *M. Kali* (Fabr.) Sacc. differt præcipue peritheciis congestis.

24. *Metasphæria Mezerei* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 232. — Peritheciis gregariis v. sparsis, epidermide tectis hemisphærico-lenticularibus, nigris, 150-200 μ . diam. papilla minutissime emergentibus; ascis breve et crasse clavatis, subsessilibus, octosporis, 60-70 \times 19-22, filiformi-paraphysatis; sporidiis 2-3-stichis, oblongo-ellipsoideis, utrinque rotundatis, rectis, constricto-

3-septatis, hyalinis, minute guttulatis, 19-22 \times 5-6, zona mucosa 2-3 μ . crassa sæpius obductis, cellula secunda crassiore.

Hab. in cortice emortuo *Daphnes Mezerei*, Luxemburg.

25. **Metasphæria ompetricola** Rostr. Islands Svampe in Bot. Tidsskrift 1903, vol. 25, p. 306. — Peritheciis lignicolis, majusculis, sphæroideis; ascis cylindraceis; sporidiis fusideo-oblongis, inæquilateralibus, 3-4-septatis, 25-28 \times 6-7, hyalinis vel dilute flavis.

Hab. in caulibus *Empetri nigri* in Islandia.

26. **Metasphæria Periclymeni** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 168. — Peritheciis sparsis, minutissimis, vix 100 μ . diam., omnino immersis, ostiolo tantum emergente papilliformi; ascis tereti-clavatis 54-74 \times 5-7, octosporis; sporidiis mono-distichis, fusiformibus, utrinque acutis, vulgo curvulis 3-septatis, ad septum medium constrictis, 17-19 \times 2,5-3, hyalinis.

Hab. in ramis siccis corticatis *Loniceræ Periclymeni*, Luxemburg.

27. **Metasphæria lentiformis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 230. — Peritheciis gregariis, epidermide tectis vertice papillulato emergentibus, globoso-depressis, nigris, 100-200 μ . diam.; ascis late clavatis vel subfusoides, breve stipitatis 55-70 \times 10-15, subinde 80 \times 8, filiformi-paraphysatis 8-sporis; sporidiis distichis vel medio tetrastichis, oblongo-ellipsoideis vel subcuneiformibus, obtusis, rectis curvulisve 3-septatis, non constrictis, granulosis, hyalinis, 16-20 \times 5,5-7.

Hab. in cortice sicco *Viburni Opuli*, Luxemburg. — Affinis *Metasphæria peridermii*.

28. **Metasphæria sambucina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 227. — Peritheciis subsolitariis vel hinc inde confertis, innato-erumpentibus et vertice lato emergentibus v. ostiolo brevi conico, nitido præditis, globoso-ellipsoideis, lignum nigrificantibus, subcarbonaceis 200 μ . diam.; ascis fasciculatis, tereti-clavatis, breve stipitatis, octosporis, 85-112 \times 8,5-10, breve paraphysatis; sporidiis monostichis vel medio distichis, cylindraceo-ellipsoideis vel subfusoides, utrinque obtusis 1-3-septatis, 2-4-guttulatis, 15-20 \times 5-6, hyalinis.

Hab. in ramis corticatis, putridis *Sambuci racemosæ*, Luxemburg. — Ob paraphyses parcissimas, an potius *Sphærulince* species?

29. **Metasphæria conorum** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 237. — Peritheciis solitariis vel gregariis, maculis brun-

neis insertis, hemisphæricis, cortice innatis, nigris, 300-500 μ . diam. minute papillatis; ascis tereti-clavatis vel fusoidis, apice obtusulis, breve stipitatis, 80-98 \times 5,5-9 octosporis; sporidiis 1-2-stichis, fusiformibus, utrinque rotundatis, rectis curvulisve, pluri-(3-5)-guttulatis (an demum septatis?), non constrictis, hyalinis 17,5-22 \times 6-7; paraphysibus filiformibus.

Hab. in squamis conorum *Abietis excelsæ*, Luxemburg. — Proxime affinis *Metasph. Cyparissice* Pass.

30. *Metasphæria nigrovelata* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2404 III, 1903, p. 229. — Peritheciis globoso-lenticularibus, cortice interiore nidulantibus et epidermide atrata tectis, dein erumpentibus, atro-brunneis 100-250 μ . diam., papilla obsoleta; ascis clavatis, longiuscule stipitatis 62 \times 8 octosporis; sporidiis subdistichis, oblongo-fusoidis, obtusiusculis, rectis curvulisve, 3-septatis non v. vix constrictis, hyalinis, minute pluriguttulatis, 16-22 \times 2,7-4; paraphysibus filiformibus ascos superantibus.

Hab. in cortice sicco *Carpini Betuli*, Luxemburg. — Affinis *Met. corticolæ*. Sporidia subinde parte superiore incrassata.

31. *Metasphæria Coryli* Celotti — Syll. IX, p. 835. — f. *quercina* 2405 Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 233. — A typo differt ascis majoribus, magis cylindricis, 90-125 \times 10-14.

Hab. in ramis corticatis *quercinis*, Luxemburg. — f. *Juglandis* Feltg. l. c. p. 234: a præcedente var. differt peritheciis majoribus 0,5-1 mm. diam., vertice verruciformibus; ascis paullo crassioribus, et sporidiis muco obvolutis. — In ramis corticatis *Juglandis* regiæ, Luxemburg.

32. *Metasphæria cavernosa* (E. et. E.) Sacc. — Syll. IX, p. 833. — 2406 f. *Salicis* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 234. — A typo differt peritheciis minoribus 200-300 μ . diam. et sporidiis 1-septatis, 4-guttatis, nec plasmate 3-partito.

Hab. in ramis corticatis *Salicis* spec., Luxemburg. — Asci 100-150 \times 10-14; sporidia 19-22 \times 8.

33. *Metasphæria corticola* (Fuck.) Sacc. — Syll. II, pag. 166. — f. 2407 *alnicola* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 231. — A typo recedit matrice superficie denigrata; ascis longe cylindraceis 6-8-sporis, 108-168 \times 8-10; sporidiis tereti-oblongis, rectis 20-23 \times 5,5-7.

Hab. in ramis corticatis *Alni glutinosæ*, Luxemburg.

34. *Metasphæria chætostroma* Sacc. — Syll. II, pag. 165. — var. 2408 *Urticæ* Rehm, Bot. Zeitschr. 1903, p. 10. — A typo differt se-

tulis vix 30 μ . longis, prope verticem sitis; ascis 80-90 \times 10-12; sporidiis 18-20 \times 5, vulgo utrinque appendicula brevi auctis.

Hab. in caulibus siccis Urticæ dioicæ in Tirolia.

35. *Metasphæria Senecionis* (Fuck.) Sacc. — Syll. II, p. 158. — f. 2409

Urticæ Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 238.

— A typo differt ascis brevioribus et latioribus, 95-108 \times 16-19, magis clavatis et matrice atrata.

Hab. in caulibus corticatis Urticæ, Luxemburg. — Sporidia 20-28 \times 5-6, cellula secunda crassiore.

36. *Metasphæria Washingtoniæ* Earle in New York Bot. Gard. 1902, 2410

p. 347. — Peritheciis dense gregariis in maculis magnis insidentibus vel 2-3 lineari-confluentibus, subcutaneis dein erumpentibus, nigris, subsphæroideis, 150 μ . diam.; contextu albido; ostiolo obscuro; ascis subcylindræis 70 \times 12; paraphysibus 2 μ . cr., superne ramosis; sporidiis distichis, hyalinis, valde constrictis, 3- vel 4-septatis, 20 \times 4.

Hab. in foliis emortuis Washingtoniæ, Stanford University Californiæ.

37. *Metasphæria Araceæ* P. Henn. Fungi Amaz. II, p. 243. — Macu- 2411

lis fusciculis, rotundato-angulatis v. effusis; peritheciis hypophyllis, sparsis, tectis dein suberumpentibus membranaceis, subglobosis, atris, ca. 150-200 μ .; ascis clavatis, obtuse rotundatis, 8-sporis, 60-70 \times 6-7, paraphysibus filiformibus, ca. 1-1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoides, subacutis, primo 1-, dein 3-septatis, haud constrictis, 20-24 \times 4-4 $\frac{1}{2}$, hyalinis.

Hab. in foliis Araceæ ejusdam, Juruá-Miry Brasiliæ.

38. *Metasphæria Bellyneckii* (West.) Sacc. — Syll. II, p. 178. — var. 2412

maculans Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 241.

— A typo differt matrice atro-maculata; ascis paullo longioribus, 70-120 \times 8-9 et loculo secundo sporidiorum paullo crassiore.

Hab. in caulibus siccis Polygonati vulgaris, Luxemburg.

39. *Metasphæria juncina* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2413

1903, p. 243. — Peritheciis sparsis, immersis, globoso-depressis, 100-200 μ . diam. ostiolo minuto, conoideo erumpentibus; ascis late clavatis, obtusis, breve stipitatis 92-120 \times 13-15, paraphysibus filiformibus, subinde furcatis, obvallatis, 6-8-sporis; sporidiis 2-3-stichis, fusiformibus, obtusis, rectis curvulisve 6-septatis, 7-guttulatis, ad septa constrictis, hyalinis 27-33 \times 5,5-6, cellula tertia vel quarta paullo crassiore.

Hab. in calamis siccis Junci effusi, Luxemburg. — *Metasph.*

Funchice proxime affinis.

40. *Metasphæria Luzulæ* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2414 1903, p. 244. — Peritheciis gregariis, epidermide parum elevata tectis, globoso-depressis, ostiolo acuto vel obtusulo erumpentibus 200-250 μ . diam.; ascis cylindraceis, breve stipitatis, filiformi-paraphysatis, octosporis 102-115 \times 7,5-10; sporidiis 1-2-stichis, oblongo-fusoideis, obtusiusculis, vulgo curvulis, 8-guttulatis, medio constrictis (an serius 8-cellularibus) hyalinis, 33-38 \times 5-5,3.

Hab. in calamis siccis Luzulæ maximæ, Luxemburg. — Affinis *Metasphæricæ Oryzæ*.

41. *Metasphæria Scirpi* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2415 II, p. 170, *Metasphæria* spec. Feltg. Vorst. Pilz. Luxemb. 1889, I, p. 267, n. 815. — Peritheciis sparsis, immersis, globosis, nigris, papilla verruciformi emergentibus; ascis tereti-fusoideis, longiuscule stipitatis, octosporis, 100-120 \times 7-9, p. spor. 75-90 μ . long.; sporidiis mono-distichis, fusiformibus, obtusulis, rectis 18-25 \times 3, 5-4,5 quadriguttulatis vel plasmate 4-partito, hyalinis, subinde mucro obvolutis.

Hab. in calamis siccis Scirpi lacustris, Luxemburg.

42. *Metasphæria biseptata* E. Rostr. Norske Ascom. 1904, pag. 24, 2416 (Vidensk. Skrift.). — Peritheciis minutis, intus albidis in maculis lanceolatis pallidis insidentibus, epidermide tectis; ascis crasse cylindraceis, 85-95 \times 15-16; sporidiis distichis, inæqualiter obovatis, biseptatis, loculo ultimo inferiore duplo longiore et crassiore.

Hab. in foliis Caricis vesicariæ, As Norvegiæ (WEBER-KJOLD).

43. *Metasphæria subseriata* Ell. et Ev. in Journ. of Mycol. 1902, 2417 vol. 8, p. 17. — Peritheciis epidermide nigrificata velatis, depresso-globosis 350-500 μ . diam. sparsis vel seriatis, ostiolo papilliformi præditis; ascis cylindraceis, sessilibus, obscure paraphysatis 60-75 \times 6-7, curvulis; sporidiis distichis, fusoideo-curvulis, 1-3-septatis, non constrictis, luteo-hyalinis, 30-35 \times 2,5-3, sæpius septis 1- v. 2 longitudinalibus præditis.

Hab. in culmis Panici virgati, Rooks County, Kansas Amer. bor. (E. BARTHOLOMEW).

44. *Metasphæria acuto-conoidea* Feltg. Vorstud. Pilz. Luxemb. 1901, 2418 Nachtr. II, p. 169, *Metasphæria* sp. n. 814, Feltg. Vorst. Lux. I, 1899, p. 262. — Peritheciis sparsis, innatis, globoso-conoideis ostiolo acuto erumpentibus; ascis clavatis, crasse et breve stipitatis 190-

200 \approx 10-13, 4-8-sporis . . . ; sporidiis subdistichis, 6-cellularibus guttulatisque, 47-57 \approx 8-10,5, constrictis, hyalinis.

Hab. in rhizomatibus Phragmitis communis et ?Scirpi lacustris, Luxemburg. — A *Trematosphæria heterospora* omnino diversa.

45. **Metasphæria oxyspora** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2419 II, pag. 171. — *Metasphæria* spec. n. 817 Feltg. Vorstud. Pilz. Luxemb. I, 1899, I, p. 268. — Peritheciis dense sparsis, innatis, ostiolo papilliformi emergentibus, globoso-depressis; ascis teretibus, longiuscule stipitatis, octosporis, 90-105 \approx 8-10; sporidiis distichis, anguste fusoides, acutis rectis curvulisve, 3-5-septatis, non constrictis, hyalinis 27-30 \approx 3,5, 4,5-pluriguttulatis.

Hab. in culmis Phalaridis arundinaceæ, Luxemburg. — Affinis *Met. Lolii*.

46. **Metasphæria Phalaridis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2420 III, 1903, p. 243. — Peritheciis sparsis, omnino immersis, globosis 100-150 μ . diam., ostiolo obtuse conoideo; ascis cylindræis, breve stipitatis, 110-135 \approx 8-9 octosporis; sporidiis mono-distichis, elliptico-fusoides, obtusis rectis, constricto 1-septatis, 4-guttulatis, 19-22 \approx 5-6.

Hab. in culmis siccis Phalaridis arundinaceæ, Luxemburg. — Affinis *Met. vulgari*. Sporidia ambitu torulosa.

47. **Metasphæria Polystichi** Feltg. Vorstud. Pilz. Luxemb. 1901, 2421 Nachtr. II, p. 171. — Peritheciis gregariis, immersis, vertice papillato, prominulo tantum emergente, epidermide immutata tectis, globoso-depressis, atris, 100-200 μ . diam.; ascis clavatis tenuiter stipitatis, copiose filiformi-paraphysatis 78-99 \approx 6-8; sporidiis distichis, ellipsoideis vel subcylindrico-fusoides, rectis curvulisve, 4-guttulatis, 4-ocularibus, 8-11 \approx 2,5-3,5, hyalinis.

Hab. in petiolis Polystichi Filicis-maris, Luxemburg.

II. *Sagediopsis* Sacc. Species lichenicolæ, parasiticæ.

48. **Metasphæria Körberi** (Stein) Schröt. Pilzfl. Schles. II, pag. 355, 2422 *Leptorrhaphis Körberi* Stein Flecht. Schles. p. 350, *Leptosphæria Körberi* (Stein) Wint. Pilzfl. II, p. 443. — Peritheciis primo immersis, demum subsuperficialibus, globosis, ostiolo profunde impresso, 0,1 mm. lat.; ascis clavatis, 8-sporis; sporidiis longe cylindræis 24-30 \approx 1-2, uno apice sæpe incrassatis, altero longe tenuatis, 4-8-septatis, hyalinis; paraphysibus manifestis.

Hab. in thallo Körberiiellæ Wimmerianæ, Hirschberg Silesiæ (STEIN).

49. *Metasphæria Steinii* (Körb.) Schröt. Pilzfl. Schles. II, pag. 355, 2423
Leptorrhaphis Steinii Körb. in Bericht. bot. Sect. d. Schles. Ges. 1869, p. 67, *Leptosphaeria Steinii* (Körb.) Wint. Pilzfl. II, p. 443.
 — Peritheciis sparsis, immersis, globosis, ostiolo applanato emergente, 0,4 mm. lat., contextu molli, atro-brunneo; ascis breve clavatis, sessilibus, 57-61 \approx 9-10, octosporis; sporidiis oblongo-fusoideis 22-40 \approx 2-3, curvulis, 2-8-septatis, hyalinis; paraphysibus filiformibus tenuissimis.

Hab. in thallo, qui albidus et verrucosus fit, Lecanoræ frutulosæ Hirschberg Silesiæ (KÖRBER).

50. *Metasphæria corniculata* (Wallr.) Sacc. et D. Sacc. *Obyzum corniculatum* Wallr. Fl. crypt. II, p. 296, Nyl. Syn. p. 136. — Peritheciis minutissimis, immersis, tuberculatis, sparsis; ascis octosporis, aparaphysatis; sporidiis breve fusoideis, utrinque acutulis subcorniculatis, indistincte 8-cellularibus, hyalinis, 16 21 \approx 5-6.

Hab. in thallo Leptogii corniculati et L. microscopici in Germania et Britannia.

51. *Metasphæria ? superveniens* (Nyl.) Sacc. et D. Sacc. *Melanotheca superveniens* Nyl. Flora, 1864, p. 358. — Peritheciis nigris, planis, subrotundatis, 1 mm. v. minoribus, nonnullis in quaque ex-crescentia matricis tuberculiformi innatis; sporidiis quaternis vel octonis, fusoideis, 3-septatis, hyalinis, deorsum subapiculatis 32-36 \approx 6-7; paraphysibus gracilibus, anastomosantibus.

Hab. in thallo Parmeliæ sulcatæ et saxatilis prope Brest Galliæ (CROUAN).

52. *Metasphæria Croceæ* (Bagl. et Car.) Sacc. et D. Sacc. *Xenosphaeria Croceæ* Bagl. et Car. Anacr. lich. p. 352, t. V, f. 79 (1879). — Peritheciis exiguis, semiimmersis, cupuliformibus, atris, nigro-fuscis; ascis elongato-fusoideis, 8-sporis, capillaceo-paraphysatis; sporidiis late fusoideis utrinque acutiusculis, plerumque oblique 3-7-septatis, 28-36 \approx 8-10, hyalinis, oculis sat inæqualibus.

Hab. in thallo Solorinæ croceæ, Valdobbia in Ital. super.

53. *Metasphæria dolichotera* (Nyl.) Sacc. et D. Sacc. *Leptosphaeria dolichotera* (Nyl.) Zopf, Hedw. 1896, p. 324, *Obyzum dolichoterum* Nyl. Flora 1872, pag. 353. — Peritheciis immersis, nigris; ascis aparaphysatis, octosporis; sporidiis cylindraceo-oblongis, hyalinis, 4-6-cellularibus, 23-27 \approx 4,5-5.

Hab. in thallo Collematis auriculati in Scotia (CROMBIE).

54. *Metasphæria pluriseptata* (Nyl.) Sacc. et D. Sacc. *Verrucaria plu-* 2428
riseptata Nyl. Flora, 1873, p. 74. — Peritheciis nigris, exiguis;
 ascis octosporis, paraphysatis; sporidiis 6-cellularibus, 18-30 \times 5-6.

Hab. in thallo et apotheciis Placodii saxicolii prope Valbonne Pyrenæorum orientalium. — Peraffinis dicitur *Didymella epicarphineæ* sed sporidia pluriseptata.

MELOMASTIA Nits. et Fuck. — Syll. II p. 213.

1. *Melomastia corylina* Feltg. Vorstud. Pilz. Luxemb., 1901, Nachtr. 2429
 II, p. 191. — Peritheciis gregariis, fere confluentibus, hemisphæricis, basi fere deficientibus, epidermide tumidula tectis, vertice tamen denudatis, membranaceo-coriaceis 500-800 μ . diam., atrobrunneis, ostiolo depresso-papillato; ascis clavatis, longiuscule stipitatis, apice rotundatis, filiformi-paraphysatis, 120 \times 13-15; sporidiis cylindræo-oblongis, utrinque conoideo-rotundatis, subdistichis 4-cellularibus, crasse 4-guttatis, rectiusculis 21-26 \times 6-8, cellulis mediis paullo crassioribus.

Hab. in ramis corticatis Coryli, Luxemburg. — *Melomastiæ corticolæ* affinis.

2. *Melomastia Morthieri* (Fuck.) Feltg. Vorstud. Pilz. Luxemb. 1901, 2430
 Nachtr. II, p. 191: cfr. Syll. II, p. 222, sub *Zignoella* — var. *Thujæ* Feltg. l. c. — A typo differt ascis longioribus et angustioribus 60-104 \times 8-10; sporidiis quoque angustioribus 24-26 \times 4-5, pariter 4-cellularibus et 4-guttatis.

Hab. in ramis decorticatis Thujæ orientalis, Luxemburg.

CERIOSPORELLA Berl. Icon. fung. I pag. 121 tab. CXXVII. — Syll. XIV p. 19. — Perithecia epidermide tecta, papillata. Asci clavati, octospori. Sporidia fusioidea, subcymbiformia, utrinque setigera, hyalina, diu 1-septata, tandem 3-pluri-septata. — Huc referendæ *C. Patouillardii* (Let.) Berl. l. c. (= *C. Ulicis* Pat. — Syll. IX, p. 845 —), *C. bicalcarata* (Ces.) Berl. l. c. *C. fuscescens* (Niessl.) Berl. l. c., ubi de generis autonomia dubitatur.

1. *Ceriosporella acuta* (Annie L. Smith), Sacc. et D. Sacc. *Ceriospora* 2431
acuta A. L. Smith Journ. Linn. Soc. XXXV, p. 17, t. II, f. 19-21. (extr.) — Syll. XVI, p. 1137 (nomen). — Peritheciis carbonaceis, atris, sparsis vel confertis et fere confluentibus, superficialibus, exiguis, inferne circa 500 μ . latis, in apicem lineis brunneis, longitudinaliter ornatum attenuatis, 200 μ . longis; sporidiis primum cylin-

draceis, utrinque appendiculatis dein sursum dilatatis, grosse guttulis, 2-pluriseptatis, circa 45×8 , hyalinis.

Hab. ad ligna, in ins. Dominica Indiæ occid.

BERTIELLA Sacc. — Syll. I p. 584 (1882) XIV p. 19. — Ab affini genere *Bertia* dignoscitur sporidiis 2-pluri-septatis, hyalinis.

1. *Bertiella botryosa* Morgan Journ. Mycol. 1904, p. 161. — Pe- 2432
ritheciis 200 μ . diam. in tubercula minuta, depressa, orbicularia vel irregularia cæspitose-connatis, minutis, subglobosis, rugulosis, nigris, ostiolis simplicibus; ascis tereti-clavatis, breve stipitatis, paraphysatis octosporis, $100-110 \times 11-14$; sporidiis fusiformibus hyalinis 1-3-septatis, $20-30 \times 5-6$.

Hab. in ligno indurato Ulmi, Preston, Ohio Amer. bor.

BAUMIELLA P. Henn. in Ergebn. der Kunene Sambesi Exped. p. 165 (1902) (Etym. a collectore BAUM). — Perithecia cæspitose erumpentia dein superficialia, membranacea, sublevia v. rugulosa, minute ostiolata dein collabentia. Asci clavati octospori. Sporidia oblonga, hyalina, subflavidula, dein 3-septata. — Ob perithecia membranacea et habitationem a *Trematostomate* Sacc., *Winterina* Sacc. et *Bertia* De Not. differt.

1. *Baumiella cæspitosa* P. Henn. l. c. — Peritheciis cæspitosis vel 2433
botryose erumpentibus, epiphyllis gregariis in maculis rotundatis fuscis, primo epidermide rupta cinctis, membranaceis, atro-castaneis, subglobosis v. ovoideis, minute ostiolatis dein collabentibus, $150-180 \mu$. diam.; ascis clavatis, apice rotundatis tunicatis, octosporis; sporidiis subdistichis v. conglobatis, oblonge ellipsoideis vel clavatis, dein 3-septatis, paullo constrictis, utrinque obtusis, $26-33 \times 9-13$ hyalino-subflavidulis, loculis guttulis.

Hab. ad folia graminea supra folia *Monotis dasyacanthi*, Quiriri pr. Sobi Africæ austr.

WINTERINA Sacc. — Syll. XIV p. 589, XVI p. 538 et cfr. quoque II p. 222, IX p. 870.

1. *Winterina gallica* Sacc. et Flag. in Atti Congr. bot. Palermo 1902, 2434
p. 53. — Peritheciis laxè gregariis, basi adnata superficialibus, globoso-depressis, 250 μ . d., ostiolo rotundo impresso 60-70 μ . d., pertusis, glabris, nigricantibus; peritheciis contextu irregulariter parenchymatico, molliusculo, olivaceo-fuligineo; ostioli periphysibus copiosis, angustis, hyalinis; ascis cylindræis, apice rotunda-

tis, basi tenuatis, $140 \approx 8-9$; paraphysibus copiosissimis, crassiusculis (an ascis sterilibus?) hyalinis; sporidiis oblique monostichis, fusoides, sæpe inæquilateris, utrinque obtusulis v. subacutis $22-26 \approx 4.4,5$, initio 6-guttatis, tandem spurie 5-septatis, non constrictis, cuboideo-nucleatis, hyalinis.

Hab. in ligno putrescente Castaneæ, Issy-l'Éveque Galliae.

ZIGNOËLLA Sacc. — Syll. II p. 214, IX p. 860, XI p. 339, XIV p. 587, XVI p. 536, 1137.

1. **Zignoëlla Cæsalpiniae** A. Zimm. in Centr. f. Bakter. 1902, VIII, 2435 pag. 181. — Peritheciis superficialibus, late gregariis, globoso-depressis, vertice poro rotundo amplo apertis, levibus, pachydermaticis, $370-450 \mu$. diam.; ascis cylindraceis, octosporis; sporidiis oblongis, utrinque obtusis, 3-septatis, non constrictis, grosse 4-guttatis, hyalinis, $22 \approx 5-6$; paraphysibus filiformibus.

Hab. in ramis Cæsalpiniae coriariae cultæ pr. Buitenzorg Javae.

2. **Zignoëlla Garciniae** P. Henn. in Engl. Bot. Jahrb. 1903, p. 51. — 2436 Peritheciis superficialibus subgregariis, minutis, hemisphaericis, subcarbonaceis, atris, papillatis $100-150 \mu$. diam.; ascis oblonge clavatis, apice tunicatis, 8-sporis, $40-50 \approx 8-10$; paraphysibus copiosis, filiformibus, flexuosis, hyalinis, ca. 0.5μ . cr.; sporidiis subdistichis, oblonge fusoides, utrinque obtusiusculis, 5-septatis, hyalinis, $12-15 \approx 3-4$.

Hab. in ramis Garciniae spec., Ost-Usambara Africae orient. (ENGLER).

3. **Zignoëlla Cascarillae** Rehm, Hedw. 1903, p. (292). — 2437 sparsis, in cortice late dealbato sessilibus, globosis, poro minutissimo pertusis, glabris, membranaceis, parenchymatice contextis, $120-200 \mu$. diam.; ascis clavatis, apice rotundatis $40-50 \approx 10-12$ octosporis; paraphysibus mucedinosis, jodi ope caeruleo tinctis; sporidiis subclavatis, utrinque obtusis 1-dein. 3-septatis, ad septa vix constrictis, hyalinis, $12-14 \approx 4-5$, distichis.

Hab. ad corticem Crotonis Cascarillae venalem, ex Amer. meridionali. — Ad *Stigmatium* nutat.

4. **Zignoëlla Potentillae** Tracy et Earle, Plantæ Bakerianae fasc. I, Fungi 2438 p. 28. — Peritheciis sparsis, erumpentibus, subsuperficialibus, nigris, depresso-globosis, rugulosis, 0.5 mm. diam.; ostiolo conico; ascis cylindraceo-fusiformibus, breve stipitatis, octosporis $45-50 \approx$

10-12; paraphysibus filiformibusasco subæquilongis; sporidiis hyalinis ovoideis vel ellipticis, 3-4-septatis, 11-12 \times 4-5.

Hab. in caulibus decorticatis *Potentillæ fruticosæ*, Bob Creek, Colorado Amer. bor.

5. *Zignoëlla sardoa* Sacc. et Trav. in Annal. Mycol. 1903, p. 431, f. I. 2439

— Peritheciis sparsis vel gregariis, cortice basi leviter immersis, subglobosis demum umbilicato-depressis, vix papillatis, latiuscule pertusis, nigris, glabris, $\frac{1}{4}$ mm. diam; ascis cylindraceo-clavatis, superne vix attenuatis, deorsum sensim pedicellatis, 60-70 \times 5-6; paraphysibus ascos aliquantulo superantibus, guttulatis, continuis; sporidiis distichis, e cylindraceo fusoideis, utrinque acutulis, rectis vel curvulis, continuis, hyalinis, 14-18 \times 3, obsolete guttulatis.

Hab. in ramis corticatis, emortuis, *Thymi*, prope Sassari Sardiniae (A. N. BERLESE). — Ad subg. *Zignoinam* spectat.

6. *Zignoëlla Piceæ* P. Henn. in Hedw. 1904, p. 70. — Peritheciis 2440

corticis superficialibus, gregariis vel sparsis, ovoideis, atris, opacis, papillatis, ca. 300-350 μ .; ascis cylindraceis, subfusoideis, apice attenuato-obtusiusculis, 8-sporis, 100-120 \times 10-13, paraphysibus copiosis, filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis v. subdistichis, oblonge fusoideis, utrinque attenuatis, obtuse rotundatis v. subacutis, 4-guttulatis, dein 3-septatis, haud constrictis, hyalinis, 18-22 \times 4-5.

Hab. in corticibus *Piceæ vulgaris*, Michailowskoje, in ditione Mosquensi Rossiae.

7. *Zignoëlla faginea* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2441

1903, p. 292. — Peritheciis gregariis vel sparsis, subgloboso-depressis, basi insculptis, coriaceo-carbonaceis, nigris 200-250 μ . diam. papilla minutissima; ascis clavatis, apice subrotundatis, breve stipitatis, crasse tunicatis, paraphysibus filiformibus superatis, octosporis 48-60 \times 9-10; sporidiis distichis, oblongo-ellipsoideis v. subfusoideis vel cylindraceis, utrinque obtusis, rectis curvulisve 2-4-guttatis, an demum septatis?, hyalinis 10-14 \times 3-4.

Hab. in ramis decorticatis *Fagi*, Luxemburg.

8. *Zignoëlla prorumpens* (Rehm) Sacc. — Syll. II, pag. 223. — var. 2442

oxystoma Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 292.

— A typo differt, præter matricem, ostiolis valde acutis vix perforatis; ascis crassioribus 130-150 \times 10-13; sporidiis indistincte septatis, non nucleatis, 20-22 \times 7-10.

Hab. in ramis decorticatis putridis *Quercus*, Luxemburg.

9. *Zignoëlla salicicola* H. Fabre — Syll. IX, p. 862. — var. *nigri* 2443

ficans Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 272, sub *Melomastia*. — Peritheciis gregariis v. basi pluribus confluentibus, ligno denigrato subimmersis, globoso-ellipsoideis, 500 μ . diam., ostiolo breve cylindraceo perforato emergentibus, carbonaceis, nigris, nucleo albo; ascis clavatis, breve stipitatis, paraphysatis, octosporis, 80-95 \times 16-20; sporidiis distichis, elliptico-fusoides, utrinque obtusis, 3-septatis, ad septa, præcipue medium, constrictis 33-42 \times 8-10, subinde muco obductis, cellula secunda paullo crassiore, cellulis mediis binis crasse 1-guttatis, extimis minute guttulatis.

Hab. in ramis decorticatis putrescentibus Salicis, Luxemburg.

10. **Zignoëlla sphæroides** (Schär.) Rehm, Hedw. 1903, p. (175) *Pyre-* 2444

nula sphæroides Schär. Enumeratio Lichenum. p. 30, non *Verrucaria sphæroides* Wallr. (= *Acrocordia tersa* Körb.). — Peritheciis sparsis, in cortice dealbata sessilibus, globosis, apice demum truncatis, poro minutissimo pertusis, glabris, atris, parenchymatice fusce contextis 400 μ . diam.; ascis clavatis, crasse tunicatis, apice rotundatis, vix stipitatis, 80-100 \times 12-14, octosporis; sporidiis acicularibus, apice superiore sæpe crassiore, inferne acutatis, rectis v. subcurvatis, 7-septatis, hyalinis 30-40 \times 3-3,5, 2-3-stichis; paraphysibus filiformibus, septatis, 3 μ . diam.; hymenio jodi ope leviter tincto.

Hab. ad infimos truncos Alnorum; prope Zürich Helvetiæ (HEPP.) et in horto Castri Heidelbergensis Germaniæ (ZWACKH) et in cortice Rhamni Frangulæ, Riffersweil Hungariæ (HETSCHWEILER).

11. **Zignoëlla sabalina** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — 2445

Peritheciis superficialibus gregariis vel subcongestis, ovatis, rugosis, collapsis, 300-350 μ . diam., ostiolo papillato donatis; ascis clavato-cylindraceis 45-60 \times 10-12, subsessilibus, aparaphysatis; sporidiis fusoides, subinæquilateralibus vel curvulis, hyalinis, 3-septatis, parce constrictis, 15-20 \times 4,5-5.

Hab. in petiolis Sabalis Adansonii, Alabama Americæ.

12. **Zignoëlla enormis** Pat. et Har. Journ. de Bot. 1903, p. 228. — 2446

Peritheciis solitariis, sparsis, superficialibus, vix insculptis, facillime dilabentibus, atris, ovoideis, apice poro pertusis, glabris, majusculis, 700-800 \times 400, contextu coriaceo (nec carbonaceo), parenchymatico, brunneo; ascis diffluentibus longe clavatis, sursum obtuse rotundatis, deorsum attenuatis, 8-sporis, indistincte paraphysatis; sporidiis cylindraceis, plus minus flexuosis, utrinque basim obtuse

attenuatis, transverse 4-5 septatis, non constrictis, hyalinis, protoplasmate nitenti repletis, 280-350 \times 12-14.

Hab. in thallo algæ *Stypocauli scoparii* pr. Cadiz Hispaniæ (SAUVAGEAU). — Sporidiis vere enormibus distincta.

13. *Zignoëlla cubensis* Har. et Pat. Bull. Soc. Myc. 1904, p. 65. — 2447

Peritheciis solitariis, sparsis, superficialibus, vix insculptis, facillime dilabentibus, atris, ovoideis, coriaceis, non carbonaceis, glabris, majusculis 800 \times 500, apice poro 100 μ . lato pertusis; ascis diffluentibus; sporidiis valde elongatis 12-septatis, utrinque obtuse attenuatis, 240-250 \times 10-16.

Hab. in thallo algæ *Stypocauli scoparii*, prope Habana Cubæ (LENORMAND). — *Zign. enormi* valde affinis.

ACANTHOSTIGMA De Not. — Syll. II p. 207, IX p. 854, XI p. 337, XIV p. 590, XVI p. 539.

1. *Acanthostigma Heraclei* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2448

1903, p. 299. — Peritheciis gregariis confertis, coriaceo membranaceis, innato-erumpentibus, demum subliberis, globoso-depressis, minute papillatis, siccis collabentibus, 200-300 μ . diam., nigricantibus, setulis septatis, rigidulis 75-100 \times 5-8, brunneis vestitis basique hyphis brunneis, repentibus cinctis; ascis tereti-clavatis, stipitatis, 75-95 \times 9-10, paraphysibus septatis, filiformibus obvallatis, octosporis; sporidiis monostichis, oblongis vel subfusoides, obtusis, rectis curvulisve constricto-1-septatis, hyalinis, demum flavido-melleis, 16-31 \times 5-8.

Hab. in caulibus siccis *Heraclei Sphondylii*, Luxemburg.

2. *Acanthostigma curvisetum* Mc. Alp. Fungus diseases Stone-fr. 2449

trees, Melbourne 1902, p. 123, fig. 251-254. — Peritheciis sparsis, superficialibus, nigris, globosis, membranaceis, firmis, poro pertusis, setulis curvulis nigro-brunneis vestitis, 180-200 μ . diam.; setulis 38 μ . long., apice conicis; ascis clavatis vel oblongo-clavatis, breve stipitatis, octosporis, 65-85 \times 11-19; paraphysibus tenuibus, filiformibus subæquilongis; sporidiis conglobatis, hyalinis, cylindraceo-fusoides, paullum curvulis, utrinque acutis, multiseptatis, usque 14-septatis, guttulatis, 50-60 \times 5-5.5.

Hab. in ligno emortuo *Pruni Armeniacæ*, Armadale Australiæ.

3. *Acanthostigma Conocarpi* Tracy et Earle in Bull. of the Torr. bot. 2450

Club. 1901, p. 186. — Maculis nullis; peritheciis hypophyllis, raro amphigenis, sparsis, minutis, subconicis, brunneis 75-90 μ . d.;

contextu parenchymatico; setulis sparsis, erectis, rigidis, intense fuligineis, opacis 40-50 μ . long. 4 μ . ad basim crassis, acuminatis; ascis oblongis vel subobovatis, breve pedicellatis 40 \times 10; paraphysibus filiformibus aseo sublongioribus; sporidiis distichis, cylindraceo-clavatis, basi obtusis, apice subacutis, 2-septatis, ad septa non constrictis, hyalinis, 12 \times 3.

Hab. in foliis *Conocarp*i sericeæ, Longboat Key, Fla. Amer. bor.

4. **Acanthostigma dispar** Morgan Journ. of Mycol. 1904, p. 162. — 2451

Peritheciis superficialibus subgregariis, 300-400 μ . diam. ovoideis, nigris, papillatis, setulis minutis, sparsis, vestitis vel subglabris, contextu e cellulis globosis, membranaceis, amplis 20-25 μ . diam. formato; ascis lanceolatis curvatis, octosporis, parce paraphysatis, brevissime stipitatis 160-180 \times 9-12; sporidiis 2-3-stichis, lineari-fusiformibus curvis, hyalinis, 7-11-septatis, 45-60 \times 4.

Hab. in ligno putri, Preston, Ohio Amer. bor. — *Acanthostigmati scopulæ* et *A. minuto* proxime affine.

ENCHNOSPHERIA Fuck. — Syll. II p. 205, IX p. 883, XVI p. 541.

1. **Enchnosphæria hispida** Morgan, Journ. of Mycol. 1904, p. 162. — 2452

Peritheciis superficialibus, gregariis, ovoideis, pachydermicis, carbonaceis, setulis 100-200 μ . longis, nigris, rigidis vestitis, 300-400 μ . diam.; ascis tereti-clavatis paraphysatis, octosporis, 110-120 \times 10-12; sporidiis clavato-oblongis, utrinque obtusis, hyalinis continuis, dein 3-septatis, 15-20 \times 5-8.

Hab. in cortice interiore *Aceris*, Preston, Ohio Amer. bor.

LASIOSPHERIA Ces. et De Not. — Syll. II p. 191, IX p. 849, XI p. 336, XIV p. 592, XVI p. 540.

1. **Lasiosphæria conica** v. Höhn Ann. Mycol. 1904, p. 43. — Peri- 2453

theciis superficialibus, dense gregariis, ex ovoideo conicis, 600-800 μ . altis, ca. 500 μ . latis, carbonaceis, nigris, supra nudis et longitudinaliter sulcato-striatis, in basi strigoso-villosis; ascis fusoides-clavatis, supra sensim attenuatis, truncatis, longe pedicellatis, 120-180 \times 12-18; paraphysibus numerosissimis, coalescentibus, ascos superantibus, 3-4 μ . latis, septatis, guttulis oleosis præditis obvallatis; sporidiis octonis pluriseriatis, cylindræis, in parte inf. obtuse et angulatim curvatis, antice rotundatis, basi caudicula subtili 3-4 \times 1-1,5 auctis, continuis, multiguttulatis, 50-52 \times 4-5.

Hab. in ligno carioso *Aceris* (?) in silvis vallis Schedinaz pr.

Jaize Bosniæ, Sept. 1903. — *L. setosæ* affinis sed appendicula sporidiorum diversa.

2. *Lasiosphæria ovina* (Pers.) Ces. et De Not. — Syll. II, p. 199. — 2454
var. *aureliana* Fairm. Journ. of Mycol. 1904, p. 229. — Peritheciis sparsis vel gregariis majusculis, ovato-globosis, basi hyphis longis, septatis, brunneis 6 μ . cr., simplicibus vel ramosis, subflexuosis cinctis, tomento griseo-albido persistenti tectis, excepto ostiolo papilliformi denudato; perithecii substantia flavo-virenti; ascis oblongo-fusoides, rectis vel curvis 100 \approx 12, vulgo guttula oleosa apice rotundato præditis; sporidiis imperfecte biseriatis v. fasciculatis, cylindraceis, partim flexuosis, deorsum abrupte curvatis, continuis, hyalinis, 40 \approx 5, subinde appendicula 6 μ . longa, acuta, hyalina, hinc vel utrinque auctis; paraphysibus obsoletis.

Hab. in ligno putrescenti Tiliæ americanæ, Lyndonville N. Y. Amer. bor. — A typo forte specificè distinguenda species.

3. *Lasiosphæria luticola* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2455
1903, p. 297. — Peritheciis subcæspitosis, rarius solitariis, sessilibus, subiculo nullo insitis, subglobosis vel globoso-ovoideis, rugulosis et, excepto vertice, setulis copiosis, obtusis, brunneo-atris, rectis, 80-140 \approx 5-8 vestitis et basi hyphis repentibus, septatis ramosis, atris, cinctis, 500-600 μ . diam., ostiolo minuto, subgloboso, nitide nigro; ascis cylindraceis vel subellipticis, stipitatis 270 \approx 19-23, octosporis, paraphysibus filiformibus evanidis; sporidiis distichis, cylindraceis, deorsum geniculato-curvatis, sursum elliptico-inflatis, 16-20 \approx 10 (parte incrassata), primo appendicibus acutis hyalinis 20-30 μ . longis, utrinque auctis, continuis, minute pluriguttulatis, dein pluriseptatis ex hyalino brunneolis 55-63 \approx 5-6.

Hab. in lutosis silvaticis, Luxemburg. — *Las. acinosæ* et *L. palustri* subaffinis.

HERPOTRICHIA Fuck — Syll. II p. 211, IX p. 856, XI p. 338, XIV p. 592, XVI p. 541, 1137.

1. *Herpotrichia ochrostoma* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2456
III, 1903, p. 296. — Peritheciis gregariis, subinde pluribus confertis, subglobosis, basi leviter insculptis 500-800 μ . diam., papilla obtuse conoidea erumpentibus, hyphis septatis, ramosis, repentibus brunneis 5-7 μ . cr. vestitis, atro-brunneis, rugosis; ascis tereti-clavatis, breve stipitatis, paraphysibus filiformibus, septatis superatis, 140-195 \approx 13-14, octosporis; sporidiis 1-2-stichis, fusi-

formibus, utrinque obtusulis, rectis curvulisve, 5-septatis, constrictis, pluriguttulatis, 40-49 \times 6,5-8.

Hab. in ramis putridis, decorticatis Fraxini excelsioris, Luxemburg. — *Enchnosphaerice* Cap. *Medusæ* subaffinis.

2. *Herpotrichia laricina* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2457 II, p. 215. — Peritheciis gregariis, globosis, subdepressis, papillatis, basi leviter insculptis ibique hyphis brunneis vestitis, sursum setis nigro-brunneis septatis, rigidis, apice subacutis 40-52 \times 2,5-3,5 hirtis, 400 μ . diam.; ascis breve clavatis, 44-65 \times 10,5, octosporis; sporidiis distichis, obtuse fusoideis, rectis curvulisve, 4-cellularibus, leviter constrictis, dilute flavidis v. brunneolis, 15-18 \times 5-6.

Hab. in ramis corticatis Laricis deciduæ, Luxemburg. — Indumento peculiari, sporidiis ascisque minutis dignoscenda species.

3. *Herpotrichia caulogena* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2458 1903, p. 296. — Peritheciis sparsis, sessilibus vel basi insculptis, hemisphaericis 500 μ . diam., atro-brunneis, papillatis, basi hyphis sursum setulis 40-45 \times 5, atro-brunneis vestitis; ascis clavatis, 91-130 \times 8-9, paraphysibus filiformi-clavatis, hyalinis, superantibus obvallatis; sporidiis distichis, ellipsoideo-clavatis, apice crassioribus et apiculo præditis, rectis curvulisve bicellularibus, pluriguttulatis hyalinis, ad septum leviter constrictis, 18-21 \times 3-4.

Hab. in caulibus putridis Silenes nutantis, Luxemburg. — *Herp. chaethomii* affinis.

4. *Herpotrichia collapsa* (Romell) Rehm, Hedw. 1903, pag. (176). — Ita vocanda *Bertia collapsa* Romell Bot. Not. 1889, pag. 24 — Syll. IX, p. 687; nam ob subiculum proprium manifestum non est *Bertiæ* species, sed *Herpotrichiæ*.

CERATOSPHERIA Niessl — Syll. II p. 227, XI p. 340, XVI p. 1137.

1. *Ceratosphæria aparaphysata* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2459 III, 1903, pag. 280. — Peritheciis solitariis vel 2-4 approximatis ligno immersis et tantum ostiolo conico obtuso vel cylindraceo, crassiusculo, atro-nitido, perithecium dimidium æquante emergentibus, globosis, asperulis, firmis, nigris, 300-400 μ . diam.; ascis tetrati-clavatis, apice obtusulis incrassatis, tenuato-stipitatis, aparaphysatis 87-138 \times 8-9, octosporis; sporidiis 1-2-stichis, anguste fusiformibus, obtusulis, rectis curvulisve 5-septatis, non constrictis hyalinis, pluriguttulatis, 40-50 \times 2,5-3.

Hab. in ramis siccis decorticatis Fagi, Luxemburg.

2. *Ceratosphæria occultata* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2460

III, 1903, p. 280. — Peritheciis gregariis innatis, globosis, nigris, 150-200 μ . diam., ostiolo emergente, cylindraceo-nodoso recto vel curvato, perithecium semel v. bis superante; ascis cylindraceis, apice rotundatis, longissime stipitatis, filiformi-paraphysatis, octosporis 190-210 \approx 10, p. sporif. 130-140 μ . long.; sporidiis oblique monostichis, late ellipsoideis vel obovatis, 3-5-septatis, non constrictis, hyalinis, minute pluriguttatis, 19-23 \approx 8.

Hab. in ramis putridis, decorticatis Fagi, Luxemburg. — Sporidiorum forma in genere peculiaris.

3. **Ceratosphæria obliquata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2461 1901, p. 203. — Peritheciis sparsis vel hinc inde approximatis, basi insculptis sed superficialibus, ovato-conicis, 300 μ . diam., nigris in ostiolum subæquans, conico-cylindraceum, atro-nitidulum acutum tenuatis; ascis cylindrico-clavatis, breve stipitatis, apice obtuse tenuatis, plerumque 120-150 \approx 13-18, subinde longioribus; sporidiis distichis, fusoideo-clavatis, 5-7-septatis, leviter constrictis, rectis curvulisque, hyalinis, granulosis, 20-26 \approx 5-8, raro longioribus; paraphysibus filiformibus, 2-3 μ . cr., guttulatis, ascos superantibus.

Hab. in ramis decorticatis Pini, Luxemburg. — Ad *Zignoëlla* species breve rostellatas nutat.

4. **Ceratosphæria grandis** Boud. in Bull. Soc. Myc. de France 1902, 2462 n. 2, tab. VII, fig. 2. — Peritheciis 1-1,5 mm. diam., atro-virentibus, rotundato-applanatis, longe ostiolatis, primo e ligno erumpentibus dein subliberis sed ligno ad basim semper subimmersis sparsis v. gregariis, ostiolo sat crasso, recto aut sæpius undulato, concolori; contextu brunneo; ascis cylindraceis, octosporis, ad basim paullo attenuatis, 220 \approx 10-12; paraphysibus tenuibus, hyalinis, intus vix granulosi, septatis; sporidiis cylindraceis, rectis aut curvatis, utrinque subattenuatis, 5-7-septatis, pluriguttulatis, hyalinis, intra ascos pallidissime fuscis, 70-100 \approx 5-6.

Hab. ad ligna putrida prope Bourg, Ain Gallie (D. CLERO). — Ab affini *Cer. ceruginosa* Rehm peritheciis sporidiisque duplo majoribus differt.

GNOMONIOPSIS Berl. Ic. fung. I, p. 93 (1892) (Etym. *Gnomonia* et *opsis* aspectus). — Perithecia innata, rostro longiusculo prædita membranacea. Asci octospori. Sporidia fusoideo-elongata, pluriseptata, articulis non secedentibus. — Articulis sporidiorum non sece-

dentibus a gen. *Cryptoderi* differt et *Ceratosphaeriæ* accedit, quæ contra recedit peritheciis lignicolis durioribus.

1. *Gnomoniopsis Chamæmori* (Fr.) Berl. l. c. t. 85, f. 1, *Cryptoderis Chamæmori* (Fr.) Sacc. — Syll. II, p. 230.

CALOSPORA Sacc. — Syll. II p. 231, IX p. 871, XI p. 341, XIV p. 593.

1. *Calospora austriaca* v. Höhn. Ann. Mycol. II, 1904, pag. 44. — 2463

Stromate e basi ovali conico-attenuato, depresso, 1-1,5 mm. lato in pustulas parum elevatas protuberante, peridermio adhærente tecto: peridermio solum disculo transverso elliptico v. lanceolato pertuso; peritheciis in quoque stromate 10-25, in corticis contextu parenchymatico immutato insculptis, plerumque 2-3-stichis, globosis v. mutua pressione irregulariter ordinatis, 150-300 μ . latis, nigris, hinc inde confluentibus, collis brevibus crassis, usque 90 μ . long., 80 μ . lat. instructis; ostiolorum disculo atro-fusco, elliptico vel transverse lanceolato, ca. 1 mm. long., ruguloso; ostiolis parum incrassatis, poro pertusis, disculos parum superantibus; ascis clavatis, membrana apicem versus parum incrassata tectis, deorsum breve stipitatis, octosporis, 80-90 \times 10-14, paraphysibus numerosis, subtilibus, hinc inde ramosis stipatis; sporidiis di-tristichis, hyalinis, subfusiformibus vel biconicis, quadricellularibus, ad septa, præcipue medium, constrictis, rectis vel sæpius parum curvatis, utrinque obtusiusculis, guttulis oleosis 4 faretis, strato mucoso destitutis, 18-25 \times 3-5.

Hab. in ramulis emortuis Alni viridis in valle Gross Pischingthal prope Aspang ad pedem montis Wechsel Austriæ inferioris. — Exsicc.: Rehm, Ascomyceten n. 1477.

2. *Calospora allantospora* Ell. et Ev. in Journ. of Myc. 1903, p. 223. 2464

— Peritheciis sparsis, in cortice et in ligno immersis, depresso-globosis 0,5 mm. diam., brunneis, contextu carbonaceo-coriaceo; ostiolo conico vel breve cylindrico, erumpenti donatis; ascis clavatis, p. spor. 45-55 \times 7-9; paraphysibus 50-90 μ . longis; sporidiis distichis, cylindraceis, curvulis, hyalinis, obtusis sub-3-septatis, 15-20 \times 2,5-3, ad septa non constrictis.

Hab. in ramis corticatis Corni alternifoliæ et Aceris saccharini, London, Canada, Amer. bor.

3. *Calospora Pickeli* Oud. et Rich. Beih. Bot. Centr. 1902, p. 5. — 2465

Stromatibus regulariter distributis, valsoideis, cortici immersis, e basi orbiculari vel elliptica, nigro-cincta late conoideo-truncatis,

primo peridermate tectis, dein protuberantibus, pustuliformibus, salvo disco, peridermate adhærente integro v. denique lacerato tectis; peritheciis basi corpori lignoso superficialiter impressis, in singulo stromate usque ad 20, circinantibus v. sibi invicem arcte appressis, subsphæroides v. angulosi 0,3-1 mm. diam., collis brevibus, fasciculatis, vix conniventibus, ostiolis nigerrimis, micantibus, obtusis, perforatis; ascis fusiformibus 50-60 \approx 7 octosporis; sporidiis distichis, cylindræis, strictis, hyalinis, quadriguttulatis quasi 1-septatis medioque constrictis, revera autem, jodo addito, 3-septatis 14-16 \approx 3,5; paraphysibus tenerrimis, guttulatis, diffluentibus.

Hab. in ramis Carpini Betuli, Valkenberg Hollandiæ.

Sect. 7. Phæophragmiæ.

PHÆOSPORA Hepp — Syll. XVI p. 519.

1. **Phæospora triphracta** (Nyl.) Zopf, Hedw. 1896, p. 339, *Endococcus* 2466 *triphRACTUS* Nyl. Fl. 1872, p. 364. — Peritheciis globosis, nigris; ascis 8-sporis, fusoideo-oblongis 11-16 \approx 4-6, 3-septatis fuscis.

Hab. in thallo *Lecidæ umbonatulæ* in Flogland (BRENNER).

2. **Phæospora triphractoides** (Nyl.) Zopf, Hedw. 1896, p. 338, *Endococcus triphractoides* Nyl. Grevillea III, pag. 24. — Peritheciis nigris hemisphæricis; ascis octosporis; sporidiis oblongo-fusoideis, 4-cellularibus brunneolis, 14-18 \approx 6-7.

Hab. in thallo, quem dealbat, *Lecidæ scotinodis* in Britannia.

3. **Phæospora Triplicantis** (Wainio) Zopf, Hedw. 1896, p. 320, *Tichothecium Triplicantis* Wain. Adj. II, p. 263. — Peritheciis nigris; ascis aparaphysatis octosporis; sporidiis oblongis, 4-6-cellularibus, 14-20 \approx 6-7, brunneis.

Hab. in thallo *Bilimbæ microcarpæ* in Fennia.

4. **Phæospora Granulosæ** Arn. Lich. fragm. n. 34, p. 5, t. 8, fig. 6, 2469 (Est. bot. Zeitschr. 1895. — Peritheciis atris, punctiformibus, verrucarioides; ascis aparaphysatis jodo non coloratis; sporidiis oblongis utrinque obtusulis, rectis curvulisve, 3-septatis, leviter constrictis, fuscis, 18-21 \approx 5-6.

Hab. in thallo *Biatoræ granulosa* in Bavaria.

5. **Phæospora hetærizans** (Leight.) Zopf, Hedw. 1896, p. 366, *Verrucaria hetærizans* Leight. Brit. Lich. p. 493. — Peritheciis im-

mersis nigris; ascis aparaphysatis, octosporis; sporidiis 4-cellularibus, ad septa constrictis, brunneis.

Hab. in thallo Verrucariorum submersæ in Britannia.

6. **Phæospora supersparsa** Arn. ap. Zopf in Act. Leop. Carol. t. LXX, 2471 1897, p. 137, cum ic. — Peritheciis gregariis punctiformibus, innatis, 160-200 μ . diam., vertice obtusulo obsolete pertuso, vix emergente; ascis cylindraceis, apice rotundatis, deorsum breviter tenuato-stipitatis, aparaphysatis, plerumque 4-6-sporis, 84-89 \times 10-14,5; sporidiis monostichis, ellipsoideo-oblongis, utrinque rotundatis, plerumque rectis, triseptatis non constrictis, vulgo 4-guttatis, fuliginosis.

Hab. in thallo Lecidearum platycarpæ pr. Paneveggio, Trentino Ital. bor.

LEPTOSPHERIA Ces. et De Not. — Syll. II p. 13, IX p. 762, XI p. 321, XIV p. 562, XVI p. 510.

I. *Eu-Leptosphæria*: in plantis vascularibus.

1. **Leptosphæria Vitalbæ** Niessl — Syll. IX, p. 765. — var. **sarmenticola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 221. — A typo distinguitur; peritheciis minoribus 500 μ . diam.; ascis crassioribus, 170-200 \times 19-22 sporidiisque quoque majoribus 40-50 \times 8-9, 10-12-cellularibus.

Hab. in sarmentis siccis Clematidis Vitalbæ, Luxemburg.

2. **Leptosphæria Papaveris** Rostr. Islands Svampe in Bot. Tidsskrift 2473 1903, vol. 25, p. 305. — Peritheciis minutissimis 200 μ . diam., subgregariis; ascis oblongis, 55-70 \times 11-13; sporidiis distichis, oblongis, utrinque obtusiusculis, 3-septatis, loculo secundo crassiore, pallide flavis 20-23 \times 6-7.

Hab. in caulibus Papaveris radicati in Islandia.

3. **Leptosphæria Cerastii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2474 1903, p. 221. — Peritheciis sparsis, subcutaneis, globoso-lenticularibus atro-brunneis 150-250 μ . diam., papilla minute erumpente; ascis clavatis, breve et crasse stipitatis, octosporis, filiformi-paraphysatis, 95 \times 30; sporidiis oblongo-fusoideis, 2-3-stichis obtusulis, rectis curvulisve, plerumque 5-7-septatis, non v. vix constrictis, brunneolis 33-36 \times 4.

Hab. in caulibus siccis Cerastii arvensis, Luxemburg.

4. *Leptosphaeria silvestris* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2473 II, p. 162. — Peritheciis gregariis, immersis, dein erumpentibus, semiglobosis, nigris, 300 μ . diam., ostiolo obtuse conoideo; ascis clavatis, 51-65-78 \approx 7-8,5; sporidiis irregulariter 3-stichis, fusoidis, rectis v. curvulis, 6-cellularibus, medio constrictis, 6-guttulatis, initio subhyalinis, dein brunneo-flavidis, 13-15 \approx 3,5-4,5.

Hab. in caulibus siccis *Silenes inflatae* et *Scabiosae Columbariae*, Luxemburg.

5. *Leptosphaeria corrugans* Rehm in Öest. Bot. Zeitschr. 1904, p. 84. 2476 — Peritheciis, in maculis suborbicularibus vel irregulariter oblongis, exsiccatis flavidulis, fusco-rubro-marginatis post destructionem parenchymatis folii papyraceis et rugulosis, 1-3 cm. latis, gregarie innatis, globosis, in epiphylo papillula minima atra conspicua, in hypophyllo ut in epiphylo hemisphaerice prominentibus, nigris, ad basim hyphis creberrimis, subramosis, fuscis obsessis, parenchymatice nigro-fusco contextis 200-300 μ . diam.; ascis clavatis, 115-120 \approx 10-12 octosporis; sporidiis elongato-fusiformibus, rectis vix curvatulis, 9-septatis, cellula 3^a, interdum 4^a latiore, flavidulis 30-33 \approx 4,5-5, distichis; paraphysibus vix conspicuis.

Hab. in foliis vivis *Cytisi alpini*, Rotweinklamm pr. Veldes Carniolæ (Voss).

6. *Leptosphaeria feniculacea* H. Fabr. — Syll. IX, p. 763. — var. 2477 *lupina* Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 29, pl. V, fig. 12. — Peritheciis globoso-depressis, diu tectis, dein nudatis, sparsis v. subgregariis, minutissime papillatis, 350-420 μ . diam., glabris, nigris; contextu parenchymatico, fuligineo; ascis longe clavatis, stipitatis, 100-120 \approx 13,5-15,5, octosporis; paraphysibus filiformibus septulatis obvallatis; sporidiis subdistichis, fusiformibus, 3-4-septatis, non constrictis, saepe inaequalibus v. curvulis, dilute olivaceis 28-30 \approx 4-5.

Hab. in caulibus emortuis *Lupini*, socia *Phoma*, Disenchantment Bay Alaska (TRELEASE).

7. *Leptosphaeria lupinicola* Earle Plantæ Bakerianæ, Fungi fasc. II, 2478 p. 20. — Peritheciis sparsis vel gregariis, tectis, dein erumpentibus, nigris, interdum rugulosis, non collapsis, 200-250 μ . diam., ostiolis valde papillatis donatis; ascis subcylindraceis 80 \approx 8; paraphysibus filiformibus; sporidiis subdistichis, cylindraceis, curvulis, nitide olivaceis 3-septatis, non constrictis, 25-30 \approx 4.

Hab. in caulibus emortuis *Lupini*, Hermosa, South Colorado Amer. bor.

8. **Leptosphæria Trifolii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2479 1903, p. 210. — Peritheciis gregariis subcutaneis globoso-depressis, nigro-brunneis 300-500 μ . diam., basi hyphis ramosis, septatis, brunneis cinctis, ostiolo minuto papillato erumpente; ascis teretibus, longiuscule stipitatis 90-120 \approx 5,5-7 octosporis; sporidiis 1-2-stichis, oblongo-fusoideis, acutulis, rectis curvulisve, 4-cellularibus, eguttulatis v. pluriguttulatis, medio constrictis 20-28 \approx 2-3,5, flavido-brunneolis, cellula secunda crassiore.

Hab. in caulibus siccis Trifolii medii, Luxemburg. — Inter *Leptosph. dumetorum* et *L. doliolum* fere media.

9. **Leptosphæria Sorbi** Jaczewski in Syd. Ann. Mycol. 1903, p. 30. 2480 — Maculis epiphyllis, magnitudine variis, subrotundatis, griseis; peritheciis paucis, globosis, epidermide velatis, ostiolo impresso pertusis; ascis fasciculatis, cylindræo-clavatis, subsessilibus 55-60 \approx 12-14, paraphysatis; sporidiis distichis, fusoideis, rectis vel curvulis, 3-septatis, ad septa leniter constrictis, olivaceis, 25-30 \approx 4-5.

Hab. in foliis Sorbi Aucupariæ, Smolensk in Sibiria ross.

10. **Leptosphæria Rostrupii** Sacc. et D. Sacc. *Leptosphæria Dryadis* 2481 E. Rostr. Norske Ascom. 1904, p. 24 (Vidensk. Skrift.). — Peritheciis numerosis, epiphyllis, globulosis, minutis; ascis 110-115 \approx 18-20; sporidiis oblongis, flavis, 25-30 \approx 8-10, triseptatis, loculo altero leniter prominulo.

Hab. in pagina superiore foliorum exsiccatorum Dryadis octopetalæ, Kongsvold Norvegiæ (A. BLYTT).

11. **Leptosphæria Dryadis** Rostr. Islands Svampe in Bot. Tidsskrift 2482 1903, vol. 25, p. 305. — Peritheciis sparsis vel subgregariis, conoideis, ostiolo crasso parum prominulo, circiter 500 μ . latis; ascis cylindræeis 100-120 \approx 12-14; sporidiis oblique monostichis, cylindræo-oblongis, rectis vel leviter curvulis, 3-5-septatis, guttulatis, ad septa leniter constrictis, loculo secundo crassiore, primitus hyalinis, dein fuscidulis 24-28 \approx 7-8; paraphysibus filiformibus, numerosis.

Hab. in caulibus lignosis decorticatis et in fructibus Dryadis octopetalæ in Islandia. — Certe affinis præcedenti.

12. **Leptosphæria rhopographoides** Rehm, Hedw. 1902, p. (204) *Rho-* 2483 *pographus caulicola* Oudem. Contr. Mycol. XVIII, pag. 712, Ned. Kr. Arch. Ser. 3, II, 3. — Peritheciis sub epidermide late denigrata nidulantibus, gregariis, globosis, haud distincte ostiolatis, parenchymatice contextis, subfuscis, epidermidem, hyphis fuscis, longis, subramosis, septatis, 5 μ . crassis, percursam et fusca-

tam elevantibus, 300 μ . diam.; ascis clavatis, 70-80 \times 10-12, octosporis; paraphysibus ramosis 2-3 μ . diam.; sporidiis fusiformibus, rectis vel subcurvatis, subacutis, 3-septatis, quaque cellula guttulis 2 parvulis oleosis instructis, hyalinis, dein dilute fusciscentibus 20-24 \times 4-4,5.

Hab. in caulibus siccis Umbelliferæ cujusdam Valkenberg Hollandiæ.

13. *Leptosphæria norvegica* E. Rostr. Norske Ascom. 1904, pag. 24 2484
(Vidensk. Skrift.). — Peritheciis sparsis; ascis clavatis 75 \times 10; sporidiis 2-3-stichis, elongatis, rectis v. curvulis, flavis, 5-septatis, loculo subultimo crassiore, 28-30 \times 5.

Hab. in caulibus Brayæ alpinæ, Bardo Norvegiæ (A. BLITT).

14. *Leptosphæria Euphorbiæ* Niessl — Syll. II, p. 24. — var. *Esulæ* 2485
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 212. — Differt a typo peritheciis, ascis et sporidiis minoribus: peritheciis 200 μ . diam.; ascis 78-87 \times 13; sporidiis 15,5-23 \times 4-5,5, triseptatis, brunneis.

Hab. in caulibus corticatis Euphorbiæ Esulæ, Luxemburg.

15. *Leptosphæria variogata* Peck in Rep. of the State botanist 1902, 2486
p. 31. — Peritheciis numerosis, minutis, depresso-globosis, in maculis indeterminatis roseis, griseis vel brunneis insidentibus, diu epidermide velatis, dein erumpentibus, nigris; ascis cylindraceis; sporidiis oblongis vel subfusiformibus, 3-septatis 18-20 \times 4-5.

Hab. in caulibus Phytolacæ decandræ, prope Trenton Falls Amer. bor.

16. *Leptosphæria Pelargonii* Rehm, Hedw. XLIV (1905) fig. 2. — 2487
Maculis dealbatis exsiccatisque irregularibus, tenuissime fuscicule cinctis; peritheciis sparsis innatis, globulosis, nigris, ostiolo haud conspicuo c. 100 μ . diam., membranaceis; ascis clavatis, apice rotundatis, 60-65 \times 8-9, 8-sporis; sporidiis cylindraceis, utrinque rotundatis, transverse 3, rarissime 4-septatis, haud constrictis, cellulis oleoso-guttatis, subfuscis, 12-14 \times 3, in superiore asci parte distichis; paraphysibus ramosis 2.

Hab. ad folium Pelargonii cult., Rio de Janeiro Brasilæ (E. ULE). — Affinis *L. Tini* et *L. Physalidis* sed sporidiis rectis, obscurioribus et cylindraceis mox dignoscenda.

17. *Leptosphæria dolioloides* (Auersw.) Karst. — Syll. II, p. 44. — 2488
var. *Lathyri* Feltg. l. c. p. 164. — A typo præsertim differt peritheciis collabascentibus.

Hab. in caulibus Lathyri (Orobi) nigri, Luxemburg. —

Var. *Rhinanthi* Feltg. l. c. — Distinguitur sporidiis longe fusiformibus 10-cellularibus, medio inter cellulas majores constrictis, curvulis, flavidis, $47-65 \times 2-3$. — In caulibus *Rhinanthi* siccis, Luxemburg.

18. *Leptosphæria plectrospora* Feltg. Vorstud. Pilz. Luxemb. 1901, 2489 Nachtr. II, p. 162. — Peritheciis gregariis epidermide pustulata tectis, conoideo-globosis, basi applanatis, rugulosis, $300-500 \mu$. d., ostiolo verruciformi v. globoso-conico erumpentibus; ascis teretoclavatis, apice rotundatis, breviter stipitatis, $78-91 \times 8$, octosporis; sporidiis 1-2-stichis, fusoideis, vulgo curvulis, 5-(raro 6-7)-septatis, medio profunde constrictis, brunneo-flavis, $15-21 \times 4-5$, utrinque recte v. oblique appendicula calcarata, $5-7 \times 1,5-2$, hyalina auctis.

Hab. in caulibus *Galii Molluginis* et *Astragali glycyphylli*, Luxemburg. — *L. appendiculatæ* affinis sed probe diversa.

19. *Leptosphæria luxemburgensis* Sacc. et D. Sacc. *L. dumetorum* 2490 Feltg. non Niessl. — var. *Symphyti* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, p. 211. — Peritheciis gregariis, tectis, globulosis, papillatis, $150-250 \mu$. diam.; ascis teretoclavatis, $70-80 \times 5,5-8$; sporidiis $30-38 \times 2,5-3$, triseptatis.

Hab. in caulibus *Symphyti caucasici*, Luxemburg. — var. *dolichospora* Feltg. l. c. p. 210. — A typo recedit ascis sporidiisque multo longioribus, nempe primis $80-100 \times 5,5-8$, alteris $30-40 \times 2,5-4$, triseptatis. — In ramis corticatis *Sambuci racemosæ*, Luxemburg. — A *L. dumetorum* certe diversa.

20. *Leptosphæria echiella* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2491 1903, p. 219. — Peritheciis sparsis v. gregariis, subcutaneis, vulgo in areis denigratis nidulantibus, globosis vel subellipsoideis, basi applanatis, nigricantibus, $200-300 \mu$. diam., ostiolo verruciformi-erumpente; ascis teretoclavatis, brevis stipitatis $130-150 \times 16-19$, (octosporis) vel $85-108 \times 19$ (tetrasporis), filiformi-paraphysatis; sporidiis 1-2-stichis, elliptico-fusiformibus, obtusis, rectis curvulisve, demum 3-5-septatis, ad septa constrictis, $30-35 \times 3-8,5$ flavo-brunneolis.

Hab. in caulibus corticatis *Echii vulgaris*, Luxemburg. — Affinis *Leptosphærie planiusculæ*.

21. *Leptosphæria trematostoma* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2492 III, 1903, p. 214. — Peritheciis sparsis, cortice nidulantibus, globoso-depressis, rugosis, atro-brunneis $500-600 \mu$. diam., hyphis brunneis, parvis cinctis, ostiolo depresso papillato perforato erum-

pente; ascis cylindraceutis deorsum tenuato-stipitatis $115 \approx 9-10$, octosporis; paraphysibus filiformibus, ramulosis, septatis, longe superantibus; sporidiis submonostichis, oblongo-ellipsoideis, utrinque rotundatis, vulgo rectis, constrictulo-3-septatis plerumque guttulatis, brunneis, $15-18 \approx 5-6,5$.

Hab. in ramis corticatis Syringæ vulgaris, Sarothamni scoparii et Tiliæ europææ, Luxemburg. — Affinis *Leptosphæria Ribis*.

22. *Leptosphæria Basalduai* Speg. Myc. argent. ser. II, 1902, p. 71. 2493

— Peritheciis lenticulari-conoideis, carbonaceis, $350-400 \mu$. diam., ostiolo crassiusculo conoideo corticem perforante, sed non vel vix exserto donatis; ascis clavatis $100 \approx 20$, antice obtuse rotundatis, postice breviter cuneato-pedicellatis, octosporis; paraphysibus filiformibus paullo longioribus; sporidiis monostichis, ellipticis v. leniter subovatis, 3-septatis, ad septa constrictulis, loculo majore supero et duobus apicalibus quandoque suboblique septatis, levibus, fuliginosis.

Hab. ad ramos dejectos putrescentes Lippiæ seriphioidis, La Plata in Argentina.

23. *Leptosphæria Castilleiæ* Clements in Bull. of the Torr. Bot. Cl. 2494

1903, p. 85. — Peritheciis copiosis, numerosis, primitus tectis, deinde erumpenti-superficialibus, globosis, ostiolatis, vix conicis vel papillatis, glabris, $150-200 \mu$.; ascis octosporis, oblongis, paraphysatis, jodo non cærulescentibus, $80-100 \approx 8-14$; sporidiis distichis, fusiformibus 3-4-septatis, curvulis raro rectis, acutis vel obtusis, ad septa leniter vel non constrictis, fusco-flavis $40-50 \approx 4$; pycnidiis globosis $100-150 \mu$. diam., basidiis $10 \approx 1$, sporulis oblongis, hyalinis $6-8 \approx 2$.

Hab. ad caules emortuos Castilleiæ pallidæ, Ruxton Park Amer. bor. — A. L. *ogilviensi* (B. et Br.) Ces. differt sporidiis 3-4-septatis, enucleatis, peritheciis erumpentibus, non papillatis, a L. *concinna* Ell. et Ev. peritheciis epapillatis, erumpentibus, sporidiis majoribus.

24. *Leptosphæria aquilana* D. Sacc. Mycoth. ital. n. 1485 (1904). — 2495

Peritheciis laxè gregariis, innatis, globulosis, $200-300 \mu$. diam., tantum ostiolo papillato vix erumpentibus, nigris, glabris; ascis tereti-clavatis, paraphysatis, octosporis; sporidiis distichis, teretifusoideis, utrinque obtusulis, 4-septatis, $40-50 \approx 6$, luteolis minute 8-10-guttulatis, loculo secundo lenissime turgidiore, utrinque minute hyalino-apiculatis.

Hab. in caulibus emortuis Scrophulariæ spec. Tagliacozzo Aquila Ital. centr. Apr. 1904. — Ab affini *Lept. modesta* differt ascis sporidiisque majoribus et sporidiis sæpius 4-septatis, qua nota accedit ad *Lept. cylindrosporam*, quæ contra ascos 4-sporos habet.

25. *Leptosphaeria Galeobdolonis* Feltg. Vorst. Pilz. Luxemb. Nachtr. 2493
III, 1903, p. 221. — Peritheciis approximatis, immersis, globoso-conoideis, basi applanatis, nigris 400–500 μ . diam., ostiolo obtuse conoideo, erumpente; ascis oblongo-clavatis, late rotundatis, breve stipitatis, 130–195 \times 8–10, octosporis; sporidiis 1–3-stichis oblongo-fusoideis, obtusulis, vulgo curvis 5–7-septatis, medio constrictulis, flavis, 42–50 \times 5–6, pluri-guttulatis.

Hab. in caulibus siccis Galeobdolonis lutei, Luxemburg.

26. *Leptosphaeria Wegeliniana* Sacc. et Syd. — Syll. XIV, pag. 567. 2487
— f. *Teucris* Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 222.
A typo vix distinguitur peritheciis paullo minoribus 150–250 μ . diam., ostiolis conoideis sporidiisque inordinatis, 35–50 \times 7–9, 10–12-septatis.

Hab. in caulibus siccis Teucris Scorodoniæ, Luxemburg.

27. *Leptosphaeria cæspitosa* Niessl — Syll. II, p. 35. — var. *Salviæ* 2498
Feltg. Vorst. Pilz. Luxemb. Nachtr. II, p. 161. — A typo præcipue differt peritheciis subsparsis nec cæspitosis.

Hab. in caulibus siccis Salviæ pratensis, Luxemburg.

28. *Leptosphaeria astericola* Ell. et Ev. in Journ. of Mycol. 1902, 2499
vol. 8, p. 17. — Peritheciis erumpenti-superficialibus, globosis, planiusculis v. concavis, subseriatis 2–3 confluentibus; ostiolo papilliformi; ascis subcylindraceis, breve-stipitatis, paraphysatis, 80–110 \times 7–8; sporidiis distichis, fusoideis, paullo curvatis, 3-septatis, non constrictis, luteolis 30–40 \times 3–4; pycnidiis forma perithecorum simillimis; sporulis oblongis v. oblongo-ellipticis, 6–8 \times 2,5–3, hyalinis, 1-septatis.

Hab. in caulibus emortuis Asteris multiflora, Rooks, County, Kansas Amer. bor. (BARTHOLOMEW). — *L. fusisporæ* Niessl et *L. leptosporæ* De Not. affinis.

29. *Leptosphaeria dumetorum* Niessl — Syll. II, p. 15. — var. *coniformis* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 159. — 2500
Peritheciis hemisphaericis in ostiolum obtuse conoideum sensim abeuntibus, atro-nitidis; ascis tereti-clavatis, 65–68 \times 3,5–5,5; sporidiis fusoideis, rectis curvulisve, utrinque acutulis, 4-cellularibus, 15–18 \times 2,5–3,5, cellula secunda vel binis interioribus paullo crassioribus, flavo-brunneolis.

Hab. in caulibus Senecionis Fuchsii, Luxemb. Cfr. n. 19.

30. *Leptosphæria planiuscula* Ces. et De Not. — Syll. II, p. 32. — 2501
var. *Saccisæ* Feltg. l. c. pag. 161. — A typo differt sporidiis 5-7-septatis sursum curvatis acutis, deorsum rectiusculis, æque acutis, flavido-brunneolis, 40-42 \approx 7-8.

Hab. in caulibus *Succisæ pratensis*, Luxemburg.

31. *Leptosphæria Phyteumatis* (Fuck.) Wint. — Syll. II, p. 37. — 2502
var. *Knautiæ* Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, p. 164. — A typo præsertim diversa peritheciis omnino glabris; ascis 55-85 \approx 7-9; sporidiis 5-7-septatis 21 \times 2,5-4, flavo-brunneis.

Hab. in caulibus *Knautiæ arvensis*, Luxemburg.

32. *Leptosphæria fuscella* (B. et Br.) Ces. et De Not. — Syll. II, p. 30, 2503
— var. *Hippophaës* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 212. — A typo differt matrice dealbata; peritheciis exacte globosis, rarius subdepressis, 250-500 μ . diam.; ascis majoribus 115-150 \approx 13-14; sporidiis quoque majoribus, 19-22 \times 9,5-11 non constrictis læte flavis, triseptatis.

Hab. in ramis corticatis *Hippophaës rhamnoidis*, Luxemburg.

33. *Leptosphæria petiolaris* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2504
III, 1903, p. 216. — Peritheciis subsparsis, subcutaneis, globoso-depressis, 170-200 μ . diam., papilla obtusa emergente; ascis clavatis, breve et crasse stipitatis, octosporis, 75-80 \times 14-16, filiformi-paraphysatis; sporidiis 2-3-stichis, elliptico-fusoides, obtusis, rectis curvulisve, 4-cellularibus non v. vix constrictis, 22-23 \times 5,5-7 e flavo-olivaceis, cellula secunda paullo crassiore, eguttulatis vel pauci-guttulatis.

Hab. in petiolis siccis Juglandis regiæ, Luxemburg.

34. *Leptosphæria Valdobbæ* Ferraris, Malp. 1904, p. 488, tab. IX, 2505
f. 1. — Peritheciis sparsis in maculis candidis orbicularibus fusco-marginatis sparse epiphyllis, nigris, 250-350 μ . diam., membranaceis pertusis; ascis clavatis, 55-60 \times 10, paraphysibus angustis obvallatis, octosporis; sporidiis subdistichis, oblongo-fusoides, 3-5-septatis, olivaceis, interdum guttulatis, rectis curvulisve 30-35 \times 3.

Hab. in foliis Fagi silvaticæ, Riva Valdobbia Ital. bor. (CARESTIA).

35. *Leptosphæria desciscens* Oud. Beih. Bot. Centr. 1902, pag. 5. 2506
— Peritheciis numerosis, gregariis, primo epidermide velatis, denique expositis, conico-depressis, basi applanatis, 250-350 μ . diam., nigris, solidiusculis, rostro cylindrico altitudinem partis ascigeræ

fere æquante, pilis decumbentibus, late repentibus, dense intricatis, olivaceo-fuscis, ramosis, anastomosantibus, 3-5 μ . latis, involutis; ascis elongato-clavatis, longe pedicellatis, octosporis, 115-120 \times 10-12; sporidiis fusiformibus, curvatis, utrinque acutis, 7 v. 8-septatis, 50-55 \times 3,5, maturis isabellinis.

Hab. in caulibus plantæ ignotæ, Valkenberg Hollandiæ.

36. *Leptosphæria agnita* (Desm.) De Not. et Ces. — Syll. II, p. 40. 2307

var. *labens* Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30, pl. V, fig. 11. — A typo differt peritheciis in macula flavida paullo majoribus (5 mm. diam.) facile collabentibus; sporidiis non diversis.

Hab. in caulibus herbaceis, Unalaska Alaska (TRELEASE).

37. *Leptosphæria Coccoes* d'Alm. et Da Cam. in Revista Agron. Li- 2508

boa, 1905, p. 384, tab. II, f. 5-7. — Peritheciis sparsis epidermide tectis, subglobosis, atris, poro pertusis, 90-150 μ . diam.; ascis subcylindricis, breve stipitatis, 80-100 \times 12-15; sporidiis cylindraceis, utrinque rotundatis, monostichis v. subdistichis, biseptatis ad septa, præcipue inferius, constrictis, fulvis.

Hab. in foliis *Coccoes Romanzoffianæ* in horto botanico Coimbra Lusitaniæ sociis *Coniothyrio palmicole* et *Phyllosticta Coccoes* (A. MOLLER).

38. *Leptosphæria Dracænæ* S. Cam. in J. V. D'Almeida, Contrib. à 2509

la Mycoflore du Portugal, 1903, p. 26. — Peritheciis subtectis, prominulis, sparsis v. confluentibus, ostiolo simplici pertuso, atris, ovalibus, 130-190 \times 115-170; ascis numerosis, paraphysatis, breviter stipitatis, octosporis, clavato-oblongis, apice rotundatis, 75-80 \times 8-10; sporidiis distichis, oblongo-fusoideis, rectis curvulisve, subflavescentibus, 4-septatis, tenuiter constrictis, 16,5-17,5 \times 3,5-4.

Hab. in foliis emortuis *Dracænæ Draconis*, in horto Inst. agrarii, Lisboa Lusitaniæ (CASTRO GUEDES).

39. *Leptosphæria Veratri* Earle, Plantæ Bakerianæ, fasc. II, Fungi 2510

p. 20. — Peritheciis sparsis, tectis, 250-350 μ . diam., ostiolo papillato, erumpente donatis; contextu e cellulis parenchymaticis, 8-10 μ . diam. formato; ascis clavatis, substipitatis, 100 \times 10; paraphysibus numerosis, filiformibus; sporidiis subdistichis, nitide luteis, 3-septatis, valde constrictis, utrinque rotundatis, 20-25 \times 5.

Hab. in caulibus emortuis *Veratri spec.*, Pagosa Peak, South Colorado Amer. bor.

40. *Leptosphæria? microthyrioides* Feltg. Vorstud. Pilz. Luxemb. 2511

1901, Nachtr. II, pag. 154. — Peritheciis sparsis, immersis, udis globoso-depressis, siccis conæavis, 150-200 μ . diam., papilla pun-

ctiformi basique hyphis radiantibus, septatis, 4-6 μ . cr., donatis atro-brunneis; ascis oblongo-cylindraceutis v. clavatis, apice rotundatis deorsum tenuatis, subsessilibus, 24-36 \times 5,5-6, octosporis, crassiuscule septato-paraphysatis; sporidiis distichis v. inordinatis elliptico-fusoides, utrinque rotundatis, rectis curvulisve, 3-septatis, leniter constrictis, brunneo-flavidis, 8-10 \times 2,6.

Hab. in caulibus siccis Iridis Pseudacori, Luxemburg. — Contextus parenchymaticus, radians, atro-cyanescens, microthyriaceus; hinc species in genere dubia.

41. **Leptosphæria monilispota** (Fuck). Sacc. — Syll. II, pag. 79. — 2512
f. **Triglochinis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 208. — A typo recedit peritheciis nondum liberis, 100-200 μ . diam.; ascis clavato-fusoides 136 \times 18-20; sporidiis flavo-brunneis, profunde constrictis 8-9-septatis, 33-40 \times 7-8.

Hab. in caulibus Triglochinis palustris, Luxemburg.

42. **Leptosphæria Stratiotis** Oud. Beih. Bot. Centr. 1902, pag. 6. — 2513
Peritheciis sparsis, atris, sub epidermide occultatis, tandem ostiolo hiantibus; ascis cylindraceutis 90-100 \times 10-12, apice rotundatis, octosporis; sporidiis distichis, oblongis, curvatis, late olivaceis, utrinque rotundatis, 3-septatis, 20-30 \times 6-7.

Hab. in foliis Stratiotis aloidis, Nunspect. Hollandiæ.

43. **Leptosphæria Junci** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2514
II, p. 156, III, p. 206, et I, 1899, p. 253, sub *Leptosphæria* spec. n. 764. — Peritheciis dense sparsis minutissimis, ostiolo papillato epidermidem perforante; ascis tereti-clavatis v. elongato-ellipticis, 104-120 \times 22-26, subsessilibus; sporidiis fusiformibus 29 \times 5, di-tristichis, plerumque curvulis, constanter 6-cellularibus, ad septa leniter constrictis, flavidis, cellula tertia paullo crassiore.

Hab. in calamis siccis Junci effusi, Luxemburg.

44. **Leptosphæria Pandani** Fl. Tassi in Bull. Lab. Ort. Bot. Sien. 1904, 2515
p. 125. — Peritheciis sparsis gregariisve, globosis, ostiolo papillato epidermidem perforante non v. vix exserto donatis, coriaceis, nigris, contextu atro indistincto 500-600 μ . diam.; ascis cylindraceutis vel subclavatis, apice rotundatis, basi modice attenuatis, abrupte pedicellatis, 100-110 \times 16-18, octosporis, paraphysibus filiformibus copiosis obvallatis; sporidiis distichis v. partim monostichis, subfusoides, initio didymis, dein 3-septatis. loculo tertio paululo crassiore, guttatis, 24-28 \times 8-10, fusco-fuligineis.

Hab. in foliis vaginisque exsiccatis Pandani utilis, in calidario horti botanici Siena Italiæ centr.

45. *Leptosphæria iridigena* Fautr. — Syll. XIV, p. 568. — f. *Typhæ* 2516
Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 206. — A typo differt tantum ostiolo non pertuso; ascis magis regularibus; sporidiis subconstrictis minute granulosis, utrinque tenuatis. 40-48 × 5-6, 5-septatis.

Hab. in foliis *Typhæ angustifoliæ*, Luxemburg.

46. *Leptosphæria rivalis* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2517
II, p. 157, I, 1899, p. 256, sub *Leptosphæria* spec. n. 775. — Peritheciis sparsis, epidermide tectis, globoso-depressis, 200-300 μ . diam. nigris, ostiolo late papillato erumpente; ascis clavatis, subsessilibus. 123 × 21-24; sporidiis 2-3-stichis, exacte fusiformibus, curvulis, utrinque obtusulis 10-12-septatis constrictisque, plerumque 11-13-guttulatis, dilute flavidis vel brunneolis, 35-45 × 8-10.

Hab. in culmis foliisque *Caricis paludosæ*, Luxemburg.

47. *Leptosphæria cariciphila* Oud. in Ned. Kruidk. Arch., 3 Ser. II, 2518
4, pag. 870, 1903. — Peritheciis membranaceis, translucetibus, brunneis, 10-70 μ . diam.; ascis 35 × 12, octosporis; sporidiis distichis, cylindraceis, rectis vel curvulis, fulvis, utrinque rotundatis, 2- vel raro 3-septatis, 16-21 × 4-7, ad septa non constrictis; paraphysibus parum numerosis.

Hab. in bracteis *Caricis arenariæ*, Nunspeet Hollandiæ (BEINS).

48. *Leptosphæria sparsa* (Fuck.) Sacc. — Syll. II, p. 77. — var. *mei-* 2519
zospora Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 207. — A typo differt imprimis sporidiis multo majoribus 31-40 × 6-7,5, 6-8, rarius 9-septatis.

Hab. in culmis *Brachypodii* et foliis *Caricis* et *Sparganii*, Luxemburg.

49. *Leptosphæria microscopica* Karst. — Syll. II, pag. 59. — var. 2520
flavo-brunnea Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 205. — A typo differt peritheciis flavo-brunneis basi hyphis diu cinctis, paullo crassioribus 100-150 μ . diam., ascis quoque majoribus 100-108 × 13-16 sporidiisque pariter majoribus 23-30 × 5,5-7, cellulis secunda et tertia crassioribus, triseptatis.

Hab. in culmis *Molinia*, *Poæ*, *Glyceriæ*, Luxemburg. — var. *Caricis-vulpinæ* Staritz in litt. — A typo dignoscitur ascis usque 90 × 18-22, sporidiisque 34 × 10. — In *Carice vulpina*, Anhalt.

II. *Xenosphæria* Trev. Species lichenicolæ, parasiticæ.

50. *Leptosphæria consocians* (Nyl.) Sacc. et D. Sacc. *Mycoporum con-* 2521
socians Nyl. Flora 1872, p. 364. — Peritheciis nigris, verrucarioi-
 deis, 50-80 μ . diam.; ascis octosporis, indistincte paraphysatis;
 sporidiis 4-cellularibus, nigris, 10-11 \times 5-6.

Hab. in thallo *Biatoræ vernalis* in Lapponia orientali. —
 Asci jodo colore roseo-violaceo tincti.

51. *Leptosphæria oligospora* (Wainio) Sacc. et D. Sacc. *Xenosphæria* 2522
oligospora Wain. Adj. II, p. 203. — Peritheciis omnino v. semiim-
 mersis apice impressis, 200 μ . diam., nigris; ascis tereti-clavatis
 4-sporis filiformi-paraphysatis; sporidiis oblongo-fusoides, 4-cellu-
 laribus ad septa constrictulis, atro-brunneis, 22-31 \times 8-10.

Hab. in thallo *Solorinæ croceæ* in silvis Lapponiæ Sodan-
 kylensis.

52. *Leptosphæria Rivana* (De Not.) Sacc. — Syll. II, p. 83. — f. *Solo-* 2523
rinæ Rehm in Est. Bot. Zeitschr. 1904, p. 84. — Sporidiis 3-
 septatis, 24-27 \times 8-10, fuscis.

Hab. in thallo *Solorinæ croceæ*, Finsterthaler See, prope
 Kühtai (Oetz) in Tirolia.

53. *Leptosphæria Arnoldi* Rehm in Est. Bot. Zeitschr. 1904, p. 84. — 2524
 Peritheciis gregarie dispersis, basi latis, sessilibus, globulosis, 90-
 100 μ . diam., nigris, glabris, poro perspicuo pertusis, subcarbo-
 naceis; ascis fusiformibus, apice valde incrassatis, sessilibus 36-
 40 \times 12-14, octosporis; sporidiis oblongo-clavatis, obtusis, 3-septatis,
 cellula secunda latiore, dilute fuscidulis 10-12 \times 3,5, distichis; pa-
 raphysibus subramosis.

Hab. in thallo *Peltigeræ malaceæ*, fuscato, prope Pane-
 veggio Tirolis austr. (Doct. ARNOLD).

54. *Leptosphæria neottizans* (Leight.) Zopf, Hedw. 1896, p. 361, *Ver-* 2525
rucaria neottizans Leight. Brit. Lich. Fl. p. 497. — Peritheciis
 minutis, confertis, sphaerico-conicis, nigris, subcarbonaceis; ascis
 4-sporis, distincte paraphysatis; sporidiis 4-cellularibus, ad septa
 constrictis, brunneis, 24,5-25 \times 8,5-9, lineari-oblongis.

Hab. in thallo *Sphyridii byssoidis* in Britannia.

55. *Leptosphæria tartarina* (Nyl.) Zopf, Hedw. 1896, p. 341, *Verru-* 2526
caria tartarina Nyl. Flora 1874, p. 15, 318, *Sphæria verrucarioi-*
des Norm. teste Nyl. — Peritheciis nigris, 250 μ . diam., convexo-
 prominulis; ascis octosporis; sporidiis fusoides, 4-cellularibus, 14-
 18 \times 4,5.

Hab. in thallo *Ochrolechiæ tartaræ* in alpe Dovre Norvegiæ (LETTERSTEDT).

56. **Leptosphaeria Umbilicariæ** (Linds.) Sacc. et D. Sacc. *Microthelia* 2527

Umbilicariæ Linds. Obs. p. 538, t. XXIII et XXIV, tab. 3, f. 31.

— Peritheciis nigris, papilliformibus, sat versiformibus, semiimmersis; ascis saccatis, paraphysibus tenuissimis obvallatis, jodo violascentibus; sporidiis ovoideis vel late ellipsoideis 1-2-septatis, non constrictis, maturis saturate brunneis, subtristichis.

Hab. in thallo *Umbilicariæ pustulatæ* in Britannia.

57. **Leptosphaeria geographicola** (Arn.) Sacc. et D. Sacc. *Phaeospora* 2528

geographicola Arnold in Zopf Hedw. 1896, p. 356. — Peritheciis innatis, vertice lato nigro; ascis 5-6-8-sporis; paraphysibus longis, crassiusculis; sporidiis 5-pluricellularibus, 11-27 × 7-10, brunneis.

Hab. in thallo *Rhizocarpî geographicî* in Germania.

58. **Leptosphaeria pycnostigma** (Nyl.) Sacc. et D. Sacc. *Verrucaria* 2529

pycnostigma Nyl. Flora 1869, p. 297, Hue Add. Nyl. p. 298. — Peritheciis integris, nigris, innatis, parte supera prominulis; sporidiis ellipsoideo-oblongis, 3-septatis, fuliginis, 21-24 × 8-9; gelatina hymenæa jodo immutata.

Hab. in thallo *Sphyrîdii byssoidis* in Gallia occidentalis.

59. **Leptosphaeria advenula** (Nyl.) Sacc. et D. Sacc. *Verrucaria adve-* 2530

nula Nyl. Flora 1865, p. 606. — Peritheciis erumpentibus minimis, atris; ascis octosporis aparaphysatis; sporidiis oblongis, 3-septatis ad septa sæpius constrictis, 15-20 × 6-8, demum fuscescentibus.

Hab. in thallo *Diploctommatis excentrici* in Hibernia et Italia bor.

LEPTOSPHERIOPSIS Berl. — Syll. XI p. 321.

1. **Leptosphaeriopsis ophioboloides** (Sacc.) Berl. — Syll. XI, p. 321. — 2531

var. *Achillæ* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 175.

— A typo dignoscitur peritheciis paullo minoribus 250-300 μ . diam., sæpe ellipticis et basi hyphis brunneis, septatis, cinctis sporidiisque acutis, ad septa constrictis, jugiter? hyalinis, 110-120 × 5-6.

Hab. in caulibus siccis *Achillæ Millefolii*, Luxemburg.

— var. *Euphorbiæ* Feltg. l. c. p. 176: dignoscitur peritheciis minoribus 250 μ .; ascis brevioribus et crassioribus 70 × 18-21 et sporidiis brevioribus 34-40 × 4-4.5, flavo-brunneis. — In caulibus corticatis *Euphorbiæ Esulæ*, Luxemburg. An specificè diversæ?

MASSARIA De Not. — Syll. II p. 2, IX p. 759, XI p. 319, XIV p. 561, XVI p. 510.

1. *Massaria marginata* Fuck. Sacc. — Syll. II, p. 9. — var. *aquilana*. 2532
D. Sacc. Myc. ital. n. 1486. — A typo differt ascis majoribus 175-200 \approx 27-30 sporidiisque majoribus, 30-38 \approx 13-15, pariter constricto-3-septatis, loculis extimis pallidioribus, strato mucoso obductis.

Hab. in ramis Berberidis vulgaris prope Celano, Aquila Italiæ centr.

REBENTISCHIA Karst. — Syll. II 12, XIV p. 562.

1. *Rebentischia thuja* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2533
1903, p. 223. — Peritheciis sparsis, innato-erumpentibus demum subliberis, globosis, atro-brunneis, glabris, crassiusculis, 100-150 μ . diam., ostiolo breve conico-cylindræco; ascis crasse clavatis 80-87 \approx 16-22, basi tenuatis, octosporis, filiformi-paraphysatis; sporidiis 2-4-stichis, clavatis, rectis curvulisve, pluri-guttulatis, demum 4-septatis, vix constrictis, 27-30 \approx 7-8, brunneis, appendicula apicali curvula cylindræca, hyalina, 10-18 μ . longa auctis.

Hab. in ramulis corticatis Thujæ orientalis, Luxemburg.

CLYPEOSPHÆRIA Fuck. — Syll. II p. 90, IX p. 798, XI p. 326, XIV p. 572, XVI p. 518.

1. *Clypeosphæria Aceris* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2534
1903, p. 161. — Peritheciis crebre gregariis, vulgo seriatis, epidermide denigrata diu tectis, globoso-depressis, 400-500 μ . diam., papilla minuta erumpente; ascis tereti-clavatis, stipitatis, octosporis, filiformi-paraphysatis, 68-80 \approx 10; sporidiis 1-2-stichis, oblongo-ellipsoideis, obtusis, rectis, triseptatis, non constrictis, brunneis 18 \approx 6.5.

Hab. in ramis corticatis Aceris campestris, Luxemburg.

2. *Clypeosphæria pseudobufonia* Rehm, Ann. Mycol. 1904, p. 176. — 2535
Peritheciis dispersis, e cortice emersis, primitus plane cineree obtectis, dein lenticulariter prominentibus, minutissime papillatis, poro vix conspicuo pertusis, globulosis, glabris, atris, carbonaceis 0.5-1 mm. diam.; ascis cylindræcis 90-100 \approx 9-10, octosporis; sporidiis ellipsoideis, utrinque rotundatis, 3-septatis, cellulis mediis majoribus, pallide fuscidulis, strato mucoso non obductis, 12-14 \approx 6-7, mono-distichis; paraphysibus filiformibus.

Hab. ad corticem Quercus in mt. Spanish, Texas Amer. bor. (LONG). — Proxima *Clyp. massariosporæ* Sacc., peritheciis minori-

bus, haud rugosiusculis, sporidiis non striolatis nec mucro obductis, minoribus differt.

MELANOMMA Nits. et Fuck. — Syll. II p. 98, IX p. 801, XI p. 327, XIV p. 573.

1. **Melanomma pleurostomum** (Rehm) Berl. — Sacc. Syll. II, p. 119 ²⁵³⁶
(*Trematosphaeria*). — var. **cistinum** Sacc. in Annal. Mycol. 1903, p. 431. — A typo differt sporidiis utrinque acutiusculis, 25-30 \times 7-8, loculis extimis vix pallidioribus.

Hab. in ramis Cisti spec., prope Sassari Sardiniae (A. N. BERLESE). — Ob exemplaria immatura diagnosis paululum dubia est.

2. **Melanomma Rhododendri** Rehm — Syll. II, p. 109. — var. **microsporum** Ferraris, Malp. 1904, p. 489. — A typo recedit ascis brevioribus 96-100 \times 7-8; sporidiis paullo minoribus 14-17 \times 5. ²⁵³⁷

Hab. in gemmis Rhododendri ferruginei Riva Valdobbia Ital. bor. (CARESTIA).

3. **Melanomma mutabile** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 214. — Peritheciis gregariis, hinc inde dense approximatis, initio subcutaneis, mox erumpentibus liberisque, hyphulis brunneis tenuibus cinctis, atris, globosis, membranaceo-firmis, 300-400 μ . diam., ostiolo papillato v. breve conoideo; ascis tereti-clavatis v. cylindricis, apice rotundatis, breve stipitatis, 47-73 \times 6-8 (cylindricis 91 \times 6-8), 6-8-sporis; sporidiis 1-2-distichis, oblongo-ellipsoideis, utrinque rotundatis, 4-cellularibus, ad septa, praecipue medium, constrictis, dilute olivaceo-brunneis, 10-13 \times 3-5; paraphysibus filiformibus, ramosis, sursum 2 μ . cr. ²⁵³⁸

Hab. in caulibus siccis Solani Dulcamarae, Luxemburg. — Sporidia initio bilocularia, hyalina.

4. **Melanomma herpotrichum** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 296. — Peritheciis sparsis, hemisphaericis, superficialibus, 500 μ . diam., a medio ad basim hyphis brunneis repentibus vestitis, papilla obtusa; ascis tereti-clavatis 125-145 \times 10-15, octosporis; sporidiis submonostichis, elliptico-fusoides, obtusis, 3-5-septatis, medio constrictis, vulgo rectis, flavo-brunneis, 18-23 \times 5,5-7,5. ²⁵³⁹

Hab. in ramis decorticatis Populi, Luxemburg. — Ad subgenus *Chaetomastium* spectat.

TREMATOSPHERIA Fuck. — Syll. II p. 115, IX p. 811, XI p. 329, XIV p. 575, XVI p. 524.

1. **Trematosphæria Lupini** Earle, *Plantæ Bakerianæ*, fasc. II, *Fungi* 2540
p. 17. — Peritheciis sparsis, nigris, carbonaceis, liberis, basi subimmersis, sphaericis v. interdum elongatis 250-350 μ . diam., ostiolo parce papillato, pertusis; ascis numerosis, clavato-cylindræcis, breve stipitatis, $80 \approx 8$; paraphysibus filiformibus, numerosis; sporidiis distichis vel irregulariter dispositis, utrinque acutis, pallide brunneis, 5-7-septatis, $30-40 \approx 4$.

Hab. in caulibus vetustis Lupini, Hermosa South Colorado Amer. bor.

2. **Trematosphæria alpina** Ferraris in *Malpighia* 1902, p. 453, t. X, 2541
f. 3. — Peritheciis superficialibus, basi ligno insculptis, carbonaceis, subhemisphaericis, sparsis, atris; ascis elongato-clavatis, basi attenuatis, $96 \approx 12$; sporidiis distichis vel oblique monostichis, fuscis, fuscoideis, rectis v. leniter curvulis, 5-septatis, ad septa constrictis $21-24 \approx 6-7$; paraphysibus filiformibus.

Hab. in sarmentis siccis Rosæ villosæ var. pomiferæ, St. Didier Italiæ bor.

3. **Trematosphæria Cactorum** Earle in *New York Bot. Gard.* 1902, 2542
p. 347. — Peritheciis sparsis vel gregariis, conico-sphaeroideis, rugosis, nigrescentibus 130-180; ostiolo indistincto; ascis subcylindræcis, breve stipitatis, $100-120 \approx 8-10$; paraphysibus filiformibus; sporidiis longitudinaliter monostichis, ovato-oblongis, fuscis, 3-septatis, utrinque obtuse conicis, $20-25 \approx 7$.

Hab. in aculeis Cerei spec., Stanford University Californiæ.

4. **Trematosphæria Chrysothamni** Earle, *Plantæ Bakerianæ* fasc. II, 2543
Fungi, p. 16. — Peritheciis sparsis vel interdum dense gregariis in maculis parvulis insidentibus, nigris, lucentibus, carbonaceis subsphaericis, superne paullum applanatis, 250 μ . diam. ostiolo minuto papillatis; ascis clavatis $70-80 \approx 8-10$, paraphysibus filiformibus, luteolis obvallatis; sporidiis distichis, brunneis, fusiformibus, sæpe curvis, 2-4-septatis, interdum ad septa constrictis, $16-20 \approx 4-5$.

Hab. in caulibus decorticatis Chrysothamni, Hermosa, Colorado Amer. bor.

5. **Trematosphæria clavispora** Ell. et Ev. in *Journ. of Mycol.* 1903, 2544
p. 166. — Peritheciis superficialibus, ovato-conicis, rugosulis 500-750 μ . diam.; ascis clavato-cylindræcis, pedicellatis, p. sp. $70-75 \approx 11-13$; paraphysibus numerosis, filiformibus; sporidiis distichis,

clavato-fusoideis, subcurvulis, 6-septatis, secundo et tertio septo leviter constrictis, subhyalinis, dein luteo-brunneis.

Hab. in caulibus emortuis *Artemisiæ tridentatæ*, Steamboat Springs, Colorado Amer. bor.

6. *Trematosphæria Fendleræ* Earle, *Plantæ Bakerianæ* fasc. II, Fungi 2545 p. 17. — Maculis nigrescentibus; peritheciis sparsis vel gregariis, prominentibus conico-mamillatis, brunneo-nigris, basi rugosis, carbonaceis, non collapsis, 500 μ . diam. vel majoribus; ascis subcylindraceis, 60-80 \times 18, paraphysibus filiformibus obvallatis; sporidiis distichis vel oblique monostichis, ellipticis, sæpe curvulis, brunneo-nigris, 3-septatis, parce constrictis, 20-25 \times 6.

Hab. in ramis decorticatis *Fendleræ*, South Colorado Amer. borealis.

7. *Trematosphæria Juniperi* Tracy et Earle, *Plantæ Bakerianæ* fasc. 2546 I, Fungi p. 31. — Peritheciis sparsis, subliberis, suborbicularibus, nigris, carbonaceis, non collapsis 0,5 mm. et ultra diam., ostiolo tuberculato, prominente, nigro donatis; ascis clavatis, breve stipitatis, facile evanescentibus, 100 \times 10; paraphysibus numerosis, filiformibus, guttulatis; sporidiis oblique monostichis v. subdistichis, fuligineis, obtuse fusiformibus v. subcylindraceis sæpe, curvis 5-7-septatis, interdum constrictis ad septum medium, 30-35 \times 6-8.

Hab. in ligno ab ætate corrupto *Juniperi monospermæ*, Mancos, Colorado Amer. bor.

8. *Trematosphæria megalospora* (De Not.) Sacc. — Syll. II, p. 120. 2547 — f. *Quercus* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 273. — A typo differt ascis brevioribus 108-124 \times 16-20 et sporidiis angustioribus 35-43 \times 8-10, maturis 8-septatis.

Hab. in cortice putrescente *Quercus*, Luxemburg.

9. *Trematosphæria faginea* Morgan, *Journ. of Mycol.* 1904, p. 161. 2548 — Peritheciis gregariis semiimmersis, ovoideis, glabris, nigris, 400 \times 500 μ . diam., ostiolo simplici poro minuto pertuso; ascis cylindraceis, 8-sporis, longe filiformi-paraphysatis, breve stipitatis, 110-128 \times 11-13; sporidiis oblique monostichis, elliptico-oblongis, initio hyalinis, demum fuscillis, 3-septatis, 14-17 \times 8-10.

Hab. in truncis prostratis *Fagi*, Preston, Ohio Amer. bor.

TREMATOSPHERIOPSIS Elenkin in Bull. du Jard. bot. St. Petersb. 1901, p. 146 (Etym. *Trematosphæria* et *opsis* aspectus). — Stroma ex hyphis crebre contextis, jodo lutescentibus quasi plectenchyma formantibus conflatum. Perithecia stromate immersa, ovoidea. Asci

octospori, paraphysati. Sporidia elongato-fusoides 2-pluriseptata, dilute colorata. Gonidia (propria?) pleurococcoidea continet.

1. **Trematosphæriopsis parmeliana** Jacz. et Elenk. l. c. cum icon. — 2549

Peritheciis aggregatis immersis, ovoideo-piriformibus v. subrotundatis, poro pertusis; ascis cylindratis, stipitatis 80-85 \times 16-20, copiose filiformi-paraphysatis, octosporis; sporidiis distichis fusoides, rectis curvulisve, 30 \times 6-8, quadrilocularibus, ad septa non v. vix constrictis ex hyalino luteolis.

Hab. in thallo *Parmeliæ* molliusculæ v. vagantis Nyl. in Russia.

OHLERIELLA Earle in New York Bot. Gard. 1902, p. 349 (Etym. ab *Ohleria*, cui affine genus). — Perithecia ut in *Amphisphæria*. Asci elongati, initio octospori, dein polyspori. Sporidia initio hyalina multiseptata, dein brunnea et in loculos singulos secedentia. — Ab *Ohleria* dignoscitur, quia loculi singulatim nec binatim secedunt.

1. **Ohleriella neo-mexicana** Earle l. c. — Peritheciis dense sparsis, 2550

nigris, hemisphæricis, erumpentibus, basi fibrillis tectis, ostiolatis papillatisque 500-750 μ . diam.; ascis latis, stipitatis, subcylindraceis maturitate 48-sporis, 150-200 \times 25-30, paraphysibus filiformibus valde adnatis; sporidiis tristichis, initio cylindratis, hyalinis 5-septatis, maturitate intense brunneis, opacis, simplicibus, subquadrangularibus, 8 μ . diam.

Hab. in caulibus siccis, Albuquerque, New Mexico Americæ.

CHÆTOSPHERIA Tulasne. — Syll. II p. 92, IX p. 799, XI p. 326. XIV p. 572, XVI p. 521.

1. **Chætosphæria Thaliætri** Clements in Bull. of the Torrey Bot. Club. 2551

1903, p. 83. — Peritheciis solitariis v. laxe gregariis, superficialibus, globosis, ostiolatis, distincte papillato-depressis, pilis flexuosis brunneis 100 \times 3, dense setulosis 200-300 μ . diam.; ascis octosporis, clavatis, paraphysatis, jodo cærulescentibus 90-100 \times 10; sporidiis distichis, fuscis, fusiformibus 3-5-septatis, sæpius 4-septatis et loculo secundo turgido, ad septa leniter constrictis, 30-35 \times 4-5; pycnidiis globosis, glabris 200-300 μ . sporulis hyalinis, continuis, oblongis, 6-8 \times 1.5.

Hab. in caulibus emortuis *Thaliætri* sparsiflori, Minuchaha Colorado Amer. bor.

2. **Chætosphæria incrustans** Rick, Broteria 1904, p. 289. — Stromate 2552

hyphis ferrugineis setulisque inter se arcte aggregatis formato; peritheciis orbicularibus, vix 1 mm. diam., nigris, rugulosis, ostiolo minusculo, gregariis, ligna v. corticem pulvere nigro late incrustantibus; ascis cylindricis 70×12 , octosporis, filiformi-paraphysatis; sporidiis fusoideis, brunneo-fuscis, 3-septatis, $25-30 \times 5-6$, curvulis, cellulis extremis hyalinis, ad septa vix constrictis.

Hab. ad ligna emortua et cortices, Rio Grande do Sul Brasilie.

SPORORMIA De Not. — Syll. II p. 123, IX p. 816, XI p. 329, XIV p. 577, XVI p. 526.

1. *Sporormia dakotensis* Griff. Mem. Torr. Bot. Cl. 1901, p. 114, 2553
tab. XV, fig. 7-9. — Peritheciis sparsis vel aggregatis, immersis globulosis $700-800 \times 350-450$, tenui-membranaceis, demum opace nigris, ostiolo longo, cylindrico, recto, curvulo vel varie contorto; ascis octosporis clavatis apice rotundatis, longe stipitatis $90-110 \times 8-11$; paraphysibus filiformibus copiosis, septatis, ascos superantibus; sporidiis 2-3-stichis, cylindræis, rectis curvulisve, utrinque rotundatis $22-24 \times 3-4$, quadriarticulatis, profundo constrictis et facile secedentibus, strato mucoso angustissimo obvolutis.

Hab. in fimo equino et bovino, Brookings, Biloxi et Great Falls Amer. bor.

2. *Sporormia longipes* Mass. et Salm. Coproph. fungi, I, p. 346, fig. 1. 2554
— Peritheciis sparsis plus minus superficialibus, subglobosis glabris, atris $250-500 \mu$ diam., ostiolo brevi, obtuso, contextu membranaceo parenchymatico e cellulis distinctis parvis, circ. 5μ diam. composito; ascis late clavatis v. elongato-clavatis in stipitem longissimum $50-80 \mu$ long., angustum sæpe flexuosum attenuatis, 8-sporis, $120-145 \times 15-20$; sporidiis asci apicem versus imbricato-3-stichis, cylindræis, utrinque rotundatis, rectis v. parum curvatis, quadrilocularibus $26-33 \times 6-8$, primum fuliginæis demum fuscis, facile secedentibus, articulis mediis minoribus subquadratis $5-6 \mu$ long., terminalibus longioribus oblongis v. ellipticis.

Hab. in fimo Cariaci mexicani, Capreoli Capræ, Camelopardalis giraffæ, Capræ dorcædis, Capræ sinaiticæ, Kew Britannicæ.

3. *Sporormia chrysospora* Griff. in Mem. Torr. Bot. Cl. 1901, p. 108. 2555
tab. XV, fig. 4-6. — Peritheciis sparsis, immersis vel in greges minutos erumpentes aggregatis demum subliberis, globulosis, $225-300 \mu$ diam. tenui-membranaceis; ostiolo brevi papillato, demum deciduo; ascis octosporis, cylindræo-clavatis, apice rotundatis,

crasse stipitatis 65-95 \times 10-12, paraphysibus filiformibus septatis, paucis; sporidiis distichis, anguste ellipsoideis, sursum paullo latioribus, utrinque rotundatis, 21-24 \times 5-7, quadricellularibus, profunde constrictis non facile secedentibus, maturis læte flavis, strato hyalino sæpe indistincto obductis.

Hab. in stercore cuniculorum, Decorah Jowa, Amer. bor. (HOLWAY). — Sporidiis læte flavis mox dignoscenda species.

4. **Sporormia tuberculata** Griff. Mem. Torr. Bot. Cl. 1091, p. 112, ²³⁵⁶ tab. XV, fig. 13-15. — Peritheciis sparsis diu immersis globulosis vel ovoideis 375-450 \times 225-275, tenui-membranaceis, opace nigris, ostiolo elongato, sursum valde ampliato et grosse tuberculato, nigro; ascis octosporis clavatis, apice rotundatis, longiuscule stipitatis 100-130 \times 11-13; paraphysibus filiformibus septulato-guttulatis ascos æquantibus; sporidiis distichis, cylindraceis, utrinque rotundatis, 4-cellularibus, profunde constrictis et facile secedentibus 32-33 \times 5,5-7, strato gelatinoso angusto obvolutis.

Hab. in fimo caprino Ft. Lee, N. Y. et in fimo equino Tucsoson Ariz. Amer. bor. — Ostiolo omnino peculiari distincta species.

5. **Sporormia chætomioides** Griff. Mem. Torr. Bot. Club. 1901, ²⁵⁵⁷ p. 113, t. XVI, f. 4-6. — Peritheciis sparsis, immersis, pilis longis, flexuosis septatis, fuscis præcipue ad ostiolum dense vestitis, 600-700 \times 300-400, tenui-membranaceis e virescenti opace nigris, ostiolo longe cylindraceo recto vel curvo; ascis octosporis tereti-clavatis longe stipitatis, 130-180 \times 13-18; paraphysibus copiosis filiformibus, septatis, ramosis, ascos multo superantibus; sporidiis 2-3-stichis, cylindraceis utrinque obtuse vel acutule rotundatis, 26-40 \times 5-6, quadricellularibus, profunde constrictis, facile secedentibus, opace brunneis, strato mucoso angusto obductis.

Hab. in fimo bovino, Biloxi et Tucsoson Amer. bor.

6. **Sporormia kansensis** Griff. Mem. Torr. Bot. Cl. 1901, p. 113, t. XVI ²⁵⁵⁸ f. 7-9. — Peritheciis sparsis, immersis, erumpentibus et maturis partim denudatis, globulosis 600-900 \times 300-450 substratui rhizinis copiosis firme adhærentibus, coriaceis, opace nigris, ostiolo longo, cylindrico apice truncato, tuberculato; ascis cylindricis, apice rotundatis modice et obtuse stipitatis 240-290 \times 26-34; paraphysibus filiformibus septatis, subramosis, ascos superantibus; sporidiis 2-3-stichis, cylindricis, rectis curvulisve, utrinque rotundatis 4-cellularibus, profunde constrictis et secedentibus, 72-77 \times 10-12, e flavido opace brunneis, stratu mucoso crasso obductis.

Hab. in fimo cuniculorum, Rooks Co. Kansas Amer. bor.
(BARTHOLOMEW).

7. **Sporormia americana** Griff. in Mem. Torr. Bot. Club. 1901, p. 114. 2559
tab. XVII, fig. 11-13. — Peritheciis sparsis, immersis $225 \approx 175$, globuloso-ovoideis tenui-membranaceis vel coriaceis, nigris, nitidulis; ostiolo papilliformi, nitido, brevi; ascis octosporis, cylindraceo-clavatis, apice rotundatis, breve stipitatis, $160-210 \approx 27-32$; paraphysibus copiosis, filiformibus, ascos paullo superantibus; sporidiis 2-3-stichis subfusiformibus, 7-cellularibus, loculo tertio ab apice ceteris latiore, cellulis 5 intermediis latioribus quam longioribus, cellula apicali subovata et longiore quam latiore, $54-62 \approx 10-13$, stratu gelatinoso crasso obvolutis.

Hab. in fimo cuniculorum, Gunnison Colorado, Amer. bor.

GIBBERIDEA Fuck. — Syll. II p. 132, XI p. 820.

1. **Gibberideæ Ribis** Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fung. 2560
p. 28. — Peritheciis in maculis nigrescentibus sparse congestis, erumpenti-superficialibus, globosis, nigris 500 μ . diam., rugosis, ostiolo brevi, conico donatis; ascis breve stipitatis, oblongis vel ellipticis $90-100 \approx 12-14$; sporidiis fuligineis, ellipticis, 5-7-septatis, ad septa constrictis, $28-32 \approx 6-7$.

Hab. in ligno decorticato Ribis, South Colorado, Amer. bor.

2. **Gibberideæ Symphoricarpi** Tracy et Earle, Plantæ Bakerianæ, fasc. 2561
I, Fungi pag. 28. — Peritheciis in greges congestis, pustuliformibus, erumpentibus, setulis longis, strigosis, interdum septatis, fuscis, circ. 6 μ . diam. vestitis, carbonaceis, ostiolo minuto donatis, 750 μ . diam.; ascis cylindraceo-clavatis, breve stipitatis $80-100 \approx 14-16$; paraphysibus numerosis, filiformibus; sporidiis oblique monostichis, ovoideis, fuligineis, 3-septatis, ad septa leviter constrictis, sæpe curvulis, $30-35 \approx 8-10$.

Hab. in frustulis emortuis Symphoricarpi, Bob Creek, South Colorado, Amer. bor.

3. **Gibberideæ obducens** Rick in Rehm Ascom. exs. n. 1561 et Ann. 2562
Mycol. 1904, pag. 517. — Peritheciis primo immersis dein erumpentibus gregatim coacervatis, totum caulem circumeuntibus, et crusta nigra insidentibus, 1-2 mm. diam., coriaceis, atris, prope basim hyphis laxis vestitis, superne nitidis, in collum breve argustatis; ascis pedicellatis v. sessilibus, clavatis, $80 \approx 6-7$, octosporis; sporidiis subviridulis, acicularibus, curvulis, valde teneris, 3-

locularibus, 25-30 \approx 2; paraphysibus, laxis filiformibus, 2 μ . cr. fuscellis.

Hab. parasitice ad caules vivos *Menthæ* spec., Sao Leopoldo Brasilie.

RHYNCHOSPHERIA Sacc. — Syll. II p. 112, 228, XVI p. 524.

1. *Rhynchosphæria alpina* Karst. Fungi nov. Lœnnb. 1904, pag. 5 ²⁵⁶³
(Finska Vetensk. Soc.). — Caulicola; peritheciis sparsis, per epidermidem erumpentibus, hemisphærico-conoideis, subcarbonaceis, atris apice acute-rostratis, minutis; ascis cylindraceis, apice basique paullo attenuatis, 8-sporis, 75-85 \approx 10-12; sporidiis distichis, fusoides, 3-5-septatis, vix constrictis ex hyalino fuscidulis, 19-22 \approx 7-9; paraphysibus haud bene discretis.

Hab. in caulibus *Atragenes alpinæ* emortuis siccis in regione Baicalensi, Listvinitchnoje (O. A. F. LÖNNBOHM).

2. *Rhynchosphæria lopadestoma* (Feltg.) Sacc. et D. Sacc. *Melanomma* ²⁵⁶⁴
(Rhync.) *lopadestomum* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 295. — Peritheciis solitariis vel gregariis, interdum quoque basi connatis, globosis, basi ligno insculptis, cortice atrato tectis, 400-600 μ . diam., carbonaceo-coriaceis, nigris, rugulosis, ostiolo e basi conica cylindraceo, non perforato, apice excavato, subinde dilatato, 500 \approx 200; ascis cylindraceis, breve stipitatis, 100-136 \approx 10-12, copiose filiformi-paraphysatis, 4-8-sporis; sporidiis monostichis, elliptico-fusoides, obtusis, rectis curvulisve, 3-septatis ad septa, præcipue medium, constrictis, 18-23 \approx 7-8, ex olivaceo brunneis, cellulis mediis paullo crassioribus.

Hab. in ramis siccis *Ilicis Aquifolii*, Luxemburg.

PSEUDOVALSA Ces. et De Not. — Syll. II p. 135, IX p. 820, XI p. 330, XIV p. 577, XVI p. 527.

1. *Pseudovalsa ribesia* Sacc. et Scalia, Harrim Alaska Exped. Crypt. ²⁵⁶⁵
p. 29, pl. V, fig. 14. — Stromatibus corticulis tectis, dein erumpentibus, nigris, e peritheciis 4-6 connatis compositis, vix 1 mm. diam., ostioli obtusulis breviter emergentibus; ascis crasse cylindraceis, brevissime abrupte stipitatis, apice late rotundatis, 110-130 \approx 24-26, filiformi-paraphysatis, octosporis; sporidiis distichis, oblongo-fusoides, primo hyalinis, didymis, strato mucoso hyalino obductis, dein 3-septatis, medio parum constrictis, 38-41 \approx 16-20, fuscidulis.

Hab. in ramis corticatis *Ribis laxiflori*, Siska Alaska (TRE-LEASE). — Sociæ adsunt *Rhynchophomæ*, *Godroniæ* et *Diaporthes* spp.

2. *Pseudovalsa canadensis* Ell. et Ev. in Journ. of Mycol. 1903, p. 224. — Peritheciis 0,5-0,8 mm. diam., in ligno immersis, sparsis vel 3-4 congestis, ostiolo papillato paullo emergente donatis; contextu subcoriaceo nigro; ascis 150-250 \times 8-10, cylindraceis, summo rotundatis, paraphysibus numerosis, filiformibus, guttulatis hyalinis obvallatis; sporidiis cylindraceis, utrinque obtuse acuminatis, 7-10-septatis, luteo-brunneis, 23-30 \times 7-8.

Hab. in pariete interiore corticibus *Cratægi*, London, Canada, Amer. bor.

3. *Pseudovalsa minima* Ell. et Ev. in Journ. of Mycol. 1903, p. 224. — Stromatibus orbicularibus vel ellipticis 1-2 mm. latis, verticalibus, a matrice sursum nigrificata et circumcirca pallidiore formati; peritheciis ab imo stromatis immersis, 2-6 in singulo stromate congestis, globosis vel ovatis 400 μ . diam.; ostioliis subconicis, paullo emergentibus; ascis cylindraceis 100-120 \times 7; sporidiis monostichis, oblongo-ellipticis 3-septatis, parce constrictis, olivaceo-brunneis 12-15 \times 3,5.

Hab. in corticibus *Aceris saccharini*, London, Canada, Amer. bor.

THYRIDARIA Sacc. — Syll. II p. 140, IX p. 821, XI p. 331, XIV p. 578.

1. *Thyridaria Sebillæi* Sacc. et Flag. in Atti Congr. bot. Palermo 1902, p. 53. — Peritheciis in soros minutos, inæquales (3-6) aggregatis v. interdum subsolitariis, stromate fuscescens parvo subcorticali connexis, globulosis, dein erumpentibus peridermioque laciniato cinctis, atris, rugulosis, 350 μ . diam., coriacellis; ostiolo obtuso brevissimo; ascis cylindraceo-clavatis, 140-160 \times 14-16, apice rotundatis, copiose filiformi-paraphysatis, sensim tenuato-stipitatis, octosporis; sporidiis distichis, cylindraceo-oblongis, subrectis, utrinque paullulum tenuatis rotundatisque 28 \times 7,5-9, fuliginis utrinque dilutioribus, 9-5-septatis, ad septa, præcipue medium, constrictis.

Hab. in ramis corticatis emortuis *Cratægi* v. *Pruni*, Rigny sur Arroux Galliæ. — Species distincta, cl. ab. R. Sebillæ dicata.

2. *Thyridaria Sambuci* (Karst.) Sacc. — Syll. II, p. 141. — f. *Fagi* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 122. — A typo differt peritheciis semper valsoideo-aggregatis, cortice nidu-

lantibus, non rubro-pulverulentis, minutius papillatis; ascis, sporidiis et paraphysibus vero iisdem.

Hab. in ramis siccis corticatis Fagi silvaticæ, Luxemburg.

KALMUSIA Niessl — Syll. II p. 142, IX p. 822, XI p. 331, XIV p. 578, XVI p. 1137.

1. **Kalmusia Sarothamni** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2570 1901, p. 109 et I, 1899, p. 177, n. 534 (sub *Kalmusia Ebuli* in Sarothamno). — Peritheciis globoso-depressis plerumque gregariis, ligno atrato immersis v. semiimmersis, ostiolis erumpentibus, tereti conoideis; ascis clavatis, longe stipitatis, 65 \times 8-10; paraphysibus filiformibus, longe superantibus obvallatis, 8-sporis; sporidiis distichis v. inordinatis, tereti-fusoideis, utrinque rotundatis, 3-septato-constrictis, rectis curvulisve, brunneis, 13-15 \times 5-6.

Hab. in ramis decorticatis Sarothamni scoparii, Luxemburg.

2. **Kalmusia argentinensis** Speg. Myc. argentin. ser. II, 1902, p. 72. — 2571 Maculis fusco-atris, superficialibus, latissime effusis, sæpius ellipsoideis, indeterminatis; peritheciis ligno omnino immersis e latere compressis, subcoriacellis, nigris mediocribus, 200-350 μ . long. et alt. 100-150 μ . latis, ostiolo minutissimo donatis; contextu indistincto, nucleo fusco repletis; ascis linearibus, apice obtuse rotundatis, basi brevissime cuneato-pedicellatis, 160-180 \times 12-16; paraphysibus filiformibus sat numerosis paullo longioribus obvallatis; sporidiis elliptico-subcylindraceis, recte vel oblique monostichis, utrinque obtuse rotundatis, 20-22 \times 10-12, levibus, fuligineis, 3-septatis, ad septa constrictulis, loculis mediis obscurioribus sæpeque 1-guttulatis.

Hab. ad palos decorticatos putrescentes Eucalypti globuli, La Plata in Argentina.

MELOGRAMMA Fr. emend. Tul. — Syll. II p. 144, IX p. 824, XI p. 331, XIV p. 579, XVI p. 527.

1. **Melogramma patens** Morgan in Journ. of Mycol. 1904, p. 49. — 2572 Stromatibus gregariis, in cortice immersis dein erumpentibus, 2-3 mm. d., 50-100 perithecia includentibus, depresso-pulvinatis, cinereo-nigris, superne mammillatis, pro peritheciis numerosissimis parvulis; peritheciis ovoideis, papillatis; ascis cylindraceis, breve pedicellatis, octosporis 120-130 \times 7-9, paraphysatis; sporidiis fusi-formibus, subcurvulis, 3-septatis, luteo-brunneis. 18-22 \times 6-7.

Hab. in ramis emortuis *Carpini americanæ*, Preston, Ohio
Amer. Bor.

Sect. 8. Hyalodictyæ.

PLEOSPHERULINA Pass. — Syll. XI p. 350, XIV p. 611, XVI p. 554.

1. **Pleosphærulina** Cassiæ P. Henn. *Fungi costaricensis* I, in Hedw. 2572
1902, p. 102. — Maculis rotundatis, fuscidulis, dein exaridis pal-
lescentibus, zona brunnea circumdatis, 2-3 mm. diam.; peritheciis
epiphyllis sparsis vel subgregariis, innatis, membranaceo-cellulosi-
subglobosis v. sublenticularibus, fuscis ca. 150 μ . diam.; ascis ovoi-
deis v. ellipsoideis, obtuse rotundatis, octosporis, paraphysatis 50-
60 \times 25-33; sporidiis conglobatis, oblonge fusoides, utrinque acu-
tiusculis v. obtusis, 4-septatis, interrupte muriformibus, 20-28 \times 7-8,
hyalinis.

Hab. in foliis Cassiæ reticulatæ, Rio Zent Amer. bor.

CATHARINIA Sacc. — Syll. II p. 275, IX p. 892, XI p. 350, XIV p. 641, XVI p. 554.

1. **Catharinia** Cascarillæ Rehm, Hedw. XLIV (1905). — Peritheciis 2574
sparsis, primitus epidermide tectis, dein plus minusve emersis,
globosis, glabris, ostiolo minuto papillatis, atris, circ. 300 μ . diam.
membranaceis; ascis clavatis, crasse tunicatis 85-100 \times 25-27, octo-
sporis; sporidiis ellipsoideis, transverse demum 7, longitudinaliter
plerumque 3-septatis, hyalinis, nitentibus, strato mucoso 3 μ . crasso
obductis, 20-25 \times 10-12, distichis; paraphysibus ramosis, septatis,
1 μ . crassis.

Hab. ad corticem venalem Cascarillæ officinalis ex America
merid. (Dr. REHM). — Gonidia omnino nulla

2. **Catharinia cylindrospora** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2575
1903, p. 199. — Peritheciis immersis, globosis, 200-250 μ . latis, ostiolo
acute conoideo, longiusculo, tantum emergente; ascis cylindraceis,
stipitatis vel sessilibus, 100-136 \times 8-10, octosporis; sporidiis mono-
stichis vel subdistichis, cylindraceis, utrinque subattenuatis, vulgo
rectis, 4-5-septatis leniterque constrictis, septulis nonnullis longi-
trorsum divis, hyalinis vel dilutissime flavidis, 16-19 \times 5,5-7.

Hab. in caulibus siccis *Symphyti caucasiæ*, Luxemburg

3. **Catharinia Hircini** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, 2576

p. 199. — Peritheciis gregariis, raris subsparsis, innato-erumpentibus vel fere liberis, globoso-conoideis, rugulosis, 300-500 μ . diam, ostiolo verruciformi vel breve cylindraceo; ascis tereti-clavatis breve stipitatis, 77-88 \times 13,5, sexsporis, filiformi-paraphysatis; sporidiis monostichis, oblongo-ovoideis, medio constricto-1-septatis, parte superiore majore 1-2-septata non constricta, septo longitudinali divisis, guttulatis vel eguttulatis, hyalinis, 15-18 \times 8-9.

Hab. in caulibus Hyperici hircini, Luxemburg.

PELTOSPHERIA Berl. — Syll. IX p. 898.

1. *Peltosphaeria Orni* Rehm in Öst. bot. Zeitschr. 1904, p. 88. — 2577

Peritheciis sparsis, simplicibus, in cortice nidulantibus, clypeo stromatico atro orbiculari 1-1,2 mm. diam. adhærente tectis, sensim hemisphæricæ prominentibus, globosis, vix papillulatis, ostiolo perspicuo pertusis, atris, subcarbonaceis, 0,6-0,7 mm. diam.; ascis cylindraceis, apice rotundatis incrassatisque 120-130 \times 15-20, quadrisporis; sporidiis late fuscoideis, transverse plerumque 7, longitudinaliter 2-3-septatis, hyalino-nitentibus, strato mucoso tenui 2 μ . cr. obductis, 30-35 \times 18, monostichis; paraphysibus filiformibus 2 μ . crassis.

Hab. in ramo corticato Fraxini Orni prope Podgora Carniolæ (STEINER).

TEICHOSPORELLA Sacc. — Syll. II p. 303, IX p. 908 (ut subg.) et XI p. 351.

1. *Teichosporella denudata* (Feltg.) Sacc. et D. Sacc. *Strickeria denudata* 2578

Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, p. 196. — Peritheciis gregariis vel nonnullis aggregatis basi insculptis, globosis, atro-brunneis, rugosulis 300-500 μ . diam., ostiolo breve cylindraceo, atro-nitido; ascis cylindricis, breve stipitatis, octosporis filiformi-paraphysatis, 110-162 \times 7-8; sporidiis monostichis, elliptico-oblongis, leviter clavatis, plerumque 5-7-septatis, constrictis, cellula 1-vel 2 longitudinaliter partitis, pluri-guttulatis hyalinis vel dilutissime brunneolis, rectis curvulisve 16-24 \times 6-8,5.

Hab. in ramis decorticatis Piri japonicæ, Luxemburg.

2. *Teichosporella Edwiniæ* (Clem.) Sacc. et D. Sacc. *Tichosporium Edwiniæ* 2579

Clements in Bull. of the Torr. Bot. Cl. 1903, p. 83. — Peritheciis copiosis, superficialibus, ad basim innatis, submembraneis, depresso-globosis, deinde cupulate collabentibus, glabris, vix ostiolatis vel vere astomis, rima apicali dehiscentibus, nigris, 175-

300 μ . d.; ascis octosporis, late oblongis, membrana crassa, jodo vix vel non cærulescentibus, $60 \approx 12-14$; sporidiis oblique monostichis, oblongo-ovatis, hyalinis 4-6-septatis, sæpius 5-septatis, loculis terminalibus exceptis, longitrorsum 1-divisis, ad septa distincte constrictis, $20-22 \approx 8-10$.

Hab. ad ramos decorticatos Edwiniæ americanæ, Minnehaha Amer bor.

Subg. TEPHROSTICTA Sacc. et Syd.

Perithecia subiculo insidentia, collabascientia.

3. **Teichosporella Negeriana** Sacc. et Syd. Ann. Mycol. 1904, p. 163. — 2380

Subiculo tenuissime pulvereo, epiphylllo, maculiformi, cinerescente; peritheciis laxè sparsis, superficialibus, globoso-hemisphæricis, mox collapsio-scutellatis, nigris, glabris, $160-200 \mu$. diam., apice poro rotundo, non papillato, 20μ . diam. pertusis; contextu tenui, parenchymatico, fuligineo, cellulis 8μ . diam.; ascis clavatis, breviter stipitatis, apice rotundatis, $65-75 \approx 11-13$, aparaphysatis, octosporis; sporidiis distichis, ellipsoideo-oblongis, utrinque obtusulis vel acutiusculis, $12-14 \approx 5$, triseptatis septoque uno vel altero longitudinali muriformibus, ex hyalino dilutissime chlorinis, fæctis.

Hab. in foliis Litseæ causticæ, Concepcion in Chile (F. W. NEGER) socia *Meliolæ* specie indeterminata.

BERLESIELLA Sacc. — Syll. IX p. 914.

1. **Berlesiella hispida** Morg. Journ. Myc. 1903, p. 217. — Stromatibus (*Botryodiplodiæ*) corticalibus, erumpentibus, elongatis, nigris; peritheciis numerosis, compactis, prominentibus, rugulosis, nigris; sporulis obovoideo-oblongis, initio hyalinis continuis, dein brunneis 1-septatis $25-30 \approx 14-17$; stromatibus (*Berlesiellæ*) corticalibus, erumpentibus, nigris, plus minusve effusis; peritheciis, in stromate immersis, latis, nigris, subglobosis, pertusis, setulis filiformibus, septatis, nigris vestitis; ascis cylindræis, breve pedicellatis, $150 \approx 18-22$; paraphysibus filiformibus; sporidiis elliptico-oblongis, diu hyalinis, dein luteo-brunneis, transverse 4-7-septatis, longitudinaliter 1-septatis, ad septum medianum sæpe constrictis, $25-35 \approx 10-14$.

Hab. in ligno corticato Æsculi glabræ, Preston, Ohio, Amer. bor.

Sect. 9. Phæodictyæ.

LEPTOSPHERULINA Mc Alpinae Fungus diseases Stone-fr. trees, Melbourne 1902, p. 103 (Etym. *leptos* angustus et *Sphærulina*). — Est *Pleosphærulina* phæodictya, nempe sporidiis septato-muriformibus, *brunneis* prædita.

I. *Eu-Leptosphærulina*. Species in plantis vascularibus.

1. **Leptosphærulina australis** Mc Alp. l. c. — Peritheciis gregariis 2582 subepidermicis dein erumpentibus, globosis, poro pertusis, membranaceis, contextu parenchymatico, pallide brunneis circ. 150 μ . d.; ascis breve clavatis, octosporis 75-80 \times 28-30; sporidiis distichis; v. tristichis, initio hyalinis, dein brunneis elongato-oblongis, utrinque rotundatis, 5-septatis, ad septa non constrictis, septulo longitudinali divisis, 30-32 \times 11.

Hab. in foliis Pruni Armeniacæ, Queensland Australiæ.

II. *Heterophracta* (Nyl.). Species lichenicolæ, parasiticæ.

2. **Leptosphærulina heterophracta** (Nyl.) Sacc. et D. Sacc. *Endococcus* 2583 *heterophractus* Nyl. Flora 1867, p. 373. — Peritheciis prominulis, globosis, nigris 100 μ . diam.; ascis 8-sporis, aparaphysatis; sporidiis ellipsoideis 4-cellularibus, 10-14 \times 6-7, nigrescentibus septulisque uno alterove longitudinali divisis.

Hab. in thallo *Lopadii pezizoides*, Evois Fennicæ.

3. **Leptosphærulina nigrifella** (Nyl.) Sacc. et D. Sacc. *Verrucaria*? 2584 *nigrifella* Nyl., Leight. Brit. Lich. Fl. p. 497. — Peritheciis nigris; ascis octosporis, aparaphysatis; sporidiis oblongis pluriseptato-muriformibus, 21-36 \times 9-14, brunneis.

Hab. in thallo *Catopyrenii cinerei* in Britannia.

4. **Leptosphærulina coccispora** (Norm.) Sacc. et D. Sacc. *Endococcus* 2585 *coccisporus* Norm. Spec. loc. nat. Norv. 1868, p. 375. — Peritheciis crebris vix parte super. emersis 110-200 μ . d., atris, globosis, ostiolo obtuso, pertuso, 20-24 μ . diam.; ascis octosporis; sporidiis brunneis late ovoideis, quadrilocularibus, septisque uno v. paucis longitudinalibus, submuralibus, 60-80 \times 40-50, loculis extimis brevioribus, vel brevissimis.

Hab. in thallo *Pyrenopsisidis hamaleæ* var. *terricolæ* in regione arctica Norvegiæ. — Jodi ope nucleus e flavo rubescit.

PLEOSPORA Rab. — Syll. II p. 241, IX p. 873, XI p. 342, XIV p. 594, XVI p. 544.

1. **Pleospora lepidiicola** Earle, *Plantæ Bakerianæ* fasc. II, *Fungi* p. 22. 2586

— Peritheciis sparsis, tectis, nigris, ostiolo erumpentibus, 200-300 μ . diam.; ascis subcylindræis, breve stipitatis, 100-120 \times 20; paraphysibus filiformibus, numerosis; sporidiis subdistichis, ovatis, utrinque late rotundatis, brunneis, 7-septatis, ad septum medium valde constrictis, verticaliter 3-vel-pluriseptatis, 20-28 \times 10-11.

Hab. in caulibus emortuis *Lepidii* a petali, Hermosa, South Colorado Amer. bor.

2. **Pleospora Armeniacæ** Mc Alp. *Fung. diseases Stone-fr. trees*, Melb. 2587

1902, p. 113, f. 176-178. — Peritheciis sparsis, initio subepidermicis dein erumpentibus, coriaceis, firmis, interdum in ostiolum elongatum desinentibus, nigris, circ. 500 μ . diam.; ascis cylindræis, stipitatis, apice rotundatis, octosporis, 100-108 \times 9-10; paraphysibus hyalinis granulosis 1,5-2 μ . crassis; sporidiis monostichis, olivaceis, oblongis v. oblongo-ellipticis transverse 3-septatis, ad septum medium leviter constrictis, longitudinaliter 2-septatis, 17-19 \times 6,5-7,5.

Hab. in ramulis emortuis *Pruni Armeniacæ*, Armadale, Victoria Australia.

3. **Pleospora kansensis** Ell. et Ev. in *Journ. of Mycol.* 1902, vol. 8, 2588

p. 17. — Peritheciis sparsis, subcutaneis, ovato-globosis 250-360 μ diam., ostiolo conico v. brevi-cylindrico præditis; ascis clavatis, superne rotundatis, inferne gradatim constrictis; paraphysibus 3 μ . cr., septatis, hyalinis; sporidiis distichis, oblongo-ovatis, sursum rotundatis 5-6-septatis, muriformibus, paullo constrictis, lucentibus, chlorino-luteis, 20-22 \times 7-9.

Hab. in caulibus emortuis *Meliloti* albi, Rooks Co. Kansas, in Amer. bor. — Ab affinibus *Pl. Meliloti* Rab. et *Pl. dura* Niessl facile dignoscitur.

4. **Pleospora ribesia** Feltg. *Vorst. Pilz. Lux. Nachtr.* III, 1903, p. 197. 2589

— Peritheciis subgregariis, subcutaneis, globoso-depressis 100-200 μ . diam., basi hyphis septatis ramosisque brunneis præditis, ostiolo papillato-erumpente; ascis cylindræis, breve stipitatis filiformi paraphysatis 180 \times 13-15, octosporis; sporidiis monostichis, ellipsoideis, 5-septato-muriformibus constrictis, flavo-brunneis, 18-20 \times 9-10.

Hab. in ramis siccis corticatis *Ribis alpini*, Luxemburg.

5. **Pleospora Vitis** Catt. — Syll. II, p. 257. — f. *Ribis alpini* Feltg. 2590
Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 197. — A typo differt peritheciis majoribus et depressis, 300-400 μ . diam.; ascis brevioribus, 100-108 \approx 27; sporidiis 7-septato-muriformibus, 31-33 \times 12-14.

Hab. in ramis siccis *Ribis alpini*, Luxemburg.

6. **Pleospora denudata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2591
1903, p. 196. — Peritheciis gregariis, ligni superficie basi insculptis et vertice emergentibus, globoso-ovoideis, siccis collabentibus, 150-200 μ . diam. atro-brunneis, ostiolo conico-papillato; ascis teretibus, longiuscule stipitatis, 108-123 \approx 12-16, filiformi-paraphysatis, octosporis; sporidiis 1-2-stichis, elliptico-fusoideis v. obovatis demum 4-cellularibus muriformibusque, brunneis, ad septa constrictis 13-19 \times 8-10.

Hab. in ligno nudo vel subcorticato *Tiliæ*, Luxemburg. —

Pleospora Saccardianæ et *Pl. Juglandis* subaffinis.

7. **Pleospora Tiliæ** Feltg. Pilz. Luxemb. Nachtr. III, 1902, p. 193. — 2592
Peritheciis sparsis, basi insculptis, globosis 150 μ . latis, minute conico-papillatis, nigris; ascis elliptico-clavatis, breve crasse stipitatis 33-41 μ . cr.; sporidiis inordinate distichis, elliptico-cylindraceis 5-7-septato-muriformibus, constrictis, 22-33 \times 10-16, flavo-brunneis.

Hab. in foliis putridis *Tiliæ*, Luxemburg. — *Pleosporæ acicicolæ* affinis.

8. **Pleospora Theæ** Speschnew, Tifl. Bot. 1904, p. 77, t. III, f. 8-13. 2593
— St. conid. *Macrosporium commune* Rab v. *theicolum* Speschnew l. c. Conidiophoris radiantibus; conidiis oblongo-piriformibus, sub-4-septato-muriformibus 24-28 \approx 10. — St. ascoph. Peritheciis sporidiisque ut in Pl. herbarum var. Citrorum (sporidiis [in icone 13] ovato-oblongis 9-11-septato-muriformibus, brunneis).

Hab. in foliis vivis *Theæ* in Caucaso.

9. **Pleospora herbarum** (Pers.) Rabb. — Syll. II, pag. 247. — f. *Ca-* 2594
melliæ Speg. in Ann. Soc. Cient. Argent. 1899, p. 277. — Maculis amphigenis, arescentibus, suborbicularibus, 5-10 mm. diam., determinatis, linea callosa turgescente infusca limitatis, supra cinereo-albis, subtus albo-rubrescentibus; peritheciis epiphyllis, sparsis, minutis, epidermide tectis, globosis, atris, opacis; ascis clavatis 100-175 \approx 25-30, octosporis aparaphysatis; sporidiis obovatis, 25-30 \times 12-15, utrinque obtusis, horizontaliter 5-7-septatis, ad septa

leniter constrictis, totis septo verticali interrupto unico divisis, fusco-flavis.

- Hab.* in foliis vivis *Camelliæ* cujusdam in hortis cultæ, La Plata Argentinae. — Var. *Rutæ* P. Henn. Hedw. 1903, p. 218. — Peritheciis 300-350; ascis superne truncato-rotundatis 80-140 \times 18-30, tetrasporis vel octosporis; sporidiis 3-7-septatis, muriformibus, ellipsoideis vel ovoideis, 20-35 \times 10-20. — In caulibus emortuis *Rutæ* graveolentis, in horto botanico Berolini. — Var. *spinicola* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 189. — Peritheciis 300-400 μ . diam. ascis tereti-clavatis 180-220 \times 25-35; sporidiis 1-2-stichis, 7-septato-muriformibus, flavis 33-40 \times 13-16. — In spinis bractearum *Onopordi Acanthii*, Luxemburg.
10. *Pleospora Cnotheræ* Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2595 1903, p. 191. — Peritheciis sparsis, epidermide tectis, depressis, atro-brunneis, 400-500 \times 200-300, firmulis, obtuse papillatis; ascis clavatis breve crasse stipitatis 95 \times 40, subinde 200 \times 27, filiformi-paraphysatis, 6-8-sporis; sporidiis inordinate 4-3-stichis, oblongo-fusoideis, septis primariis 7 et secundariis 5-7 transverse partitis muriformibusque, constrictis, flavo-brunneis, 45-55 \times 13-15.
- Hab.* in caulibus siccis *Cnotheræ* biennis, Luxemburg. — *Pleosporæ Feltgeni* affinis.
11. *Pleospora evonymella* Maublanc in Bull. Soc. Myc. de France 2596 1903, fasc. III, p. 292, tab. XV, fig. 2. — Maculis amphigenis, albidis vel cinereis, late brunneo cinctis; peritheciis epiphyllis, globosis vel leniter depressis, atris, ostiolo minuto, perforato donatis, epidermide tectis, 250 μ . latis; ascis clavatis, sæpe curvis, basi in stipitem brevissimum abeuntibus, octosporis, 140-160 \times 20-25; sporidiis subdistichis, oblongis, parte superiore leniter crassiore 7-septatis, muralibus, ad septa vix constrictis, 33-40 \times 14-16; paraphysibus nullis.
- Hab.* in foliis *Evonymi japonici*, Pornic Gallie.
12. *Pleospora collapsa* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2597 1903, p. 198. — Peritheciis gregariis subcutaneo-erumpentibus, globoso-depressis, siccis subscutellatis, nigris, minute papillatis 300-400 μ . diam.; ascis clavatis, breve stipitatis, octosporis, 130-136 \times 27-33; sporidiis inordinatis, submonostichis, oblongo-ellipsoideis, 7-septato-muriformibus, constrictis, sursum latioribus, 32-38 \times 13-16.
- Hab.* in ramis corticatis *Papilionaceæ* cujusdam frutescentis, Luxemburg.
13. *Pleospora Clematidis* Fuck. — Syll. II, p. 265. — f. *Sarothamni* 2598

Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 149. — Peritheciis gregariis, subliberis, nigris, papillatis; ascis cylindraceis $104 \times 9-10$; sporidiis monostichis, fusoides, utrinque obtusulis, plerumque 5-septato-muriformibus, flavo-brunneis, $18-21 \times 6-8$.

Hab. in ramis siccis Sarothamni scoparii, Luxemburg.

14. **Pleospora atro-maculans** Rehm Ann. Mycol. 1904, p. 177. — 2599

Peritheciis gregariis, ramulum ambientibus, sub peridermio demum hemisphærice elevato et atro-maculato nidulantibus, eoque perfisso apice prominentibus, haud ostiolatis, poro minutissimo pertusis, globulosis, glabris, crasse membranaceo-contextis $0,3-0,5$ mm. d.; ascis subcylindraceis $80-100 \times 9-10$, octosporis; paraphysisibus filiformibus; sporidiis ellipsoideis, utrinque obtusis, primitus transverse 3, sæpe 5-septatis, demum cellulis mediis 1 vel 2 semel longitudinaliter septatis, ad medium interdum subconstrictis, olivaceis, $12-15 \times 5-6$, plerumque oblique monostichis.

Hab. ad ramulos emertuos Corni, Blue Mountains, N. Carolina Amer. bor. (ATKINSON).

15. **Pleospora Briardiana** Sacc. — Syll. IX, p. 882. — f. **Achilleæ** 2600

Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 190. — A typo differt peritheciis in sicco vix collabascentibus; ascis brevioribus et crassioribus $80-108 \times 16-19$; sporidiis inæquilateris vulgo 6-septato-muriformibus, $23-26 \times 8$, flavis.

Hab. in caulibus siccis Achilleæ Millefolii, Luxemburg.

16. **Pleospora megalotheca** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2601

Fungi p. 35. — Peritheciis sparsis, erumpentibus, glabris, depresso-globosis, ostiolo conico breve donatis; ascis 15-20, oblongis, longe stipitatis, crasse tunicatis, octosporis $200-250 \times 40-45$; sporidiis oblique monostichis vel distichis, ovatis, luteo-brunneis, dein opacis 11-13-septatis et 2-3 longitudinaliter septatis, $40-45 \times 16-20$.

Hab. in caulibus Achilleæ Millefolii, Bob Creek, Colorado Amer.

17. **Pleospora Melloti** Rabh. — Syll. II, pag. 246. — f. **Achilleæ** 2602

Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 141. — Peritheciis gregariis, erumpentibus, globoso-depressis, dein collabentibus, minute papillatis; ascis cylindraceis sessilibus, 6-sporis, $160-170 \times 17-20$; sporidiis submonostichis, 5-6-septato-muriformibus, $30-32 \times 14$, flavo-brunneis.

Hab. in caulibus siccis Achilleæ Millefolii, Luxemburg.

18. **Pleospora Balsamorrhizæ** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2603

Fungi p. 34. — Peritheciis sparsis, longitudinaliter suberumpenti-

bus, glabris, superne depressis, 300-400 μ . diam. ostiolo breve conico donatis; ascis 4-8, late clavatis vel obovatis 200-250 \times 70-80 octosporis; sporidiis sine ordine dispositis 7-septatis, ad septa constrictis, ad septum medium constrictioribus, magnitudine variis 60 \times 28 v. 38 \times 16, medie 45 \times 22.

Hab. in caulibus Balsamorhizæ deltoideæ, Mancos Colorado, Amer.

19. **Pleospora Compositarum** Earle, Plantæ Bakerianæ fasc. II, Fungi 2604 p. 21. — Peritheciis sparsis, tectis, planiusculis, nigris 200 μ . diam., membranaceis; ascis ovoideis v. obovatis, breve stipitatis 80-90 \times 20; paraphysibus numerosis asco longioribus, guttulatis, superne inflatis, vage ramosulis; sporidiis distichis, brunneis, utrinque obtusis, ovoideis v. subovatis 5-(raro 6-7)-septatis, septo mediano constrictis, sæpe curvulis, longitudinaliter medio divisis, 20-25 \times 8-10.

Hab. in caulibus emortuis Eucephali spec., Hermosa South Colorado, Amer. bor.

20. **Pleospora Rhanterii** P. Henn. F. Oranen. Hochreut. p. 243 (Ann. 2605 Conserv. Jard. bot. Genève, 1903-1904). — Peritheciis cauliculis sparsis v. subgregariis, innatis, epidermidem suberumpentibus, æmisphæricis ca. 120-160 μ . diam., atro-membranaceis, poro pertusis; ascis clavatis apice tunicatis, rotundatis, ca. 75-100 \times 20-30, basi breve stipitatis curvulis, octosporis, obsolete paraphysatis; sporidiis subdistichis, oblonge ellipsoideis, utrinque rotundatis, primo melleis, dein brunneis, deinde atro-castaneis, 3-5-septatis, cuneiformibus, 20-30 \times 13-18.

Hab. in ramulis siccis Rhanterii suaveolentis, Oran Afr. sept. (HOCHREUTINER).

21. **Pleospora Senecionis** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2606 p. 22. — Peritheciis sparsis, tectis, dein erumpentibus, nigris, 200 μ . diam. v. ultra, planiusculis; ostiolo inconspicuo; ascis ovoideis, fere sessilibus, 80 \times 18; paraphysibus paucis, filiformibus, tenuibus, continuis; sporidiis subdistichis, ovatis, utrinque rotundatis, brunneis, 5-7-septatis, 20-30 \times 12.

Hab. in caulibus emortuis Senecionis, Hermosa, South Colorado, Amer. bor.

22. **Pleospora discoidea** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2607 1903, p. 198. — Peritheciis sparsis epidermide tenui tectis, nigricantibus globoso-discoideis, minute conico-papillatis, subcarbonaceis 200-300 \times 100-150; ascis cylindraceis breve crasse stipitatis, octo-

sporis 115-127 \times 25-30, paraphysatis; sporidiis distichis, obovato-oblongis, vulgo 7-septato-muriformibus, constrictis, 30-38 \times 13-16.

Hab. in ramis corticatis Sambuci racemosæ, Luxemburg.

23. **Pleospora Clematidis** Fuck. — Syll. II, p. 255. — f. **Sambuci** 2303
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 195. — A typo recedit, præter matricem, ascis magnitudine valde ludibundis 95-230 \times 8-14, et sporidiis ellipsoideo-fusiformibus, 21-28 \times 7-8, 4-5-septato, muriformibus, brunneo-flavis.

Hab. in ramis corticatis Sambuci racemosæ, Luxemburg. — f. **Viburni** Feltg. l. c. — Differt peritheciis multo minoribus 100-200 μ . diam., globosis, basi non applanatis, non rugosis; ascis latioribus, 100-175 \times 15-16; sporidiis crassioribus 20-23 \times 8-11, 3-5-septato-muriformibus constrictisque, flavis. — In ramis corticatis Viburni Opuli, Luxemburg. — Cfr. supra n. 13.

24. **Pleospora Falconeri** P. Henn. Hedw. 1903, p. 218. — Peritheciis 2609
follicolis, in maculis fuscis v. griseis sparsis, subhemisphæricis, atro-olivaceis ca. 300 μ . diam.; ascis crasse clavatis, apice obtusis tunicatis, octosporis, 80-110 \times 20-30, paraphysisibus pluriseptatis 3-4,5 μ . crassis, hyalinis; sporidiis distichis, oblonge ellipsoideis, utrinque obtusis, melleis, dein brunneis, 9-10-septatis, 1-2 longitudinaliter septatis, constrictis, 25-32 \times 14-16.

Hab. in foliis emortuis Rhododendri Falconeri, in horto botanico Berolinensi.

25. **Pleospora massarioides** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2610
p. 192. — Peritheciis gregariis, epidermide tectis, membranaceo-coriaceis, nigris, globoso-depressis, 250-300 μ . diam., papilla verruciformi-erumpentibus; ascis elongato-clavatis, breve stipitatis 175-200 \times 27-33, paraphysatis octosporis; sporidiis inordinate distichis, oblongo-ellipsoideis subclavatisve 7-septato-muriformibus constrictis, 40-47 \times 13-16, melleo-brunneis, strato mucoso hyalino obductis.

Hab. in caulibus siccis Echii vulgaris, Luxemburg.

26. **Pleospora Acantholimonis** P. Henn. in Notizblatt des Kgl. bot. 2611
Gard. Berl. 1900, n. 22, p. 37. — Peritheciis follicolis, subgregariis, epidermide primo tectis, dein erumpentibus, lenticulari-hemisphæricis, atris, ca. 150-350 μ . diam.; ascis clavatis, vertice obtusis, basi attenuatis, sæpe stipitatis curvulis, 150-200 \times 24-32, octosporis; sporidiis subdistichis v. oblique monostichis, ellipsoideis v. ovoideis, utrinque obtusis 3-dein 7-septatis, muriformibus, constrictis, melleis dein brunneis, 23-34 \times 16-23.

Hab. in foliis *Acantholimonis glaucescentis* et *A. venusti* in horto botanico Berolinensi Germaniæ.

27. *Pleospora Ephedræ* Speg. Myc. argent. ser. II, 1902, p. 72. — 2613

Peritheciis laxè aggregatis, primo epidermide tectis, dein denudatis, superficialibus, conoideo-hemisphæricis, eximie papillato-ostiolatis, carbonaceis, glaberrimis, 150-250 μ . diam., contextu indistincto, atro; ascis cylindræis v. clavulatis dense paraphysatis, 90-160 \times 15-24; paraphysibus filiformibus, longioribus, simplicibus; sporidiis rectis, monostichis v. subdistichis, ex elliptico subovatis, 24-25 \times 10-12, horizontaliter 7-septatis, septo altero longitudinali divis, olivaceis, in prima ætate tunica mucosa tenui vestitis, mox nudis, levibus.

Hab. ad ramulos dejectos putrescentes *Ephedræ ochreata*, La Plata in Argentina. — Species *P. Gilletianæ* Sacc. certe affinis, sed rite distincta.

28. *Pleospora Henningsiana* Ruhland, Jahn et Paul (Verh. d. Bot. 2613

Ver. d. Prov. Brandenb. XXXXIII, 1901, p. 105). — Peritheciis in cortice matricis sub peridermio innatis, depresso-globosis, coriaceo-membranaceis, sparsis, atris, ostiolo 50-60 μ . lato, paulum prominente instructis, ceterum peridermio tectis, c. 350 μ . latis, 260 μ . altis; ascis subcylindræo-clavatis, 160-180 \times 20-28, apice rotundatis, paraphysibus filiformi-tenuibus obvallatis; sporidiis plerumque 7-9-septatis, muriformibus, oblongo-fusiformibus, ad septa leviter constrictis, primum flavis, dein fusco-fuligineis, 45-50 \times 10-15.

Hab. ad ramulos emortuos *Coryli Avellanæ* (?) ad Wiederschönhausen pr. Berlin Germaniæ.

29. *Pleospora juglandina* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2614

1903, p. 193. — Peritheciis sparsis, basi insculptis epidermideque pustulata tectis, demum subliberis, globosis, minute papillatis, nigris, 200-250 μ . diam.; ascis tereti-oblongis, octosporis, parce paraphysatis, 142-158 \times 23-29; sporidiis 1-2-stichis, obovato-oblongis 5-rarius 6-septato-muriformibus, constrictis, e melleo brunneis, 30-37 \times 14-17.

Hab. in pag. inf. foliorum *Juglandis* regiæ, Luxemburg.

30. *Pleospora Salicis* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2615

1903, p. 199. — Peritheciis sparsis, innato-erumpentibus, globoso depressis, obtuse papillatis, nigris 150-200 μ . diam.; ascis . . . non visis; sporidiis oblongo-ellipsoideis, obtusis, rectis, 7-septato-muriformibus, constrictis, flavo-brunneis 12-15 \times 4-5,5.

Hab. in ramis corticatis Salicis, Luxemburg.

31. **Pleospora sepulta** Clements in Bull. of the Torr. Bot. Cl. 1903, 2616 p. 85. — Peritheciis subcopiosis, subepidermidicis, rotundato-elevatis v. hysteroideis, globosis, vix ostiolatis, carbonaceis, glabris, 400-500 μ . diam.; ascis 6-8-sporis, clavato-cylindræis, jodo non tinctis, paraphysibus linearibus, simplicibus, valde torulosis, apice 4 μ . lat.; sporidiis oblongo-fusiformibus, oblique monostichis, utrinque attenuato-acutis, 8-11-plerumque 9-10-septatis, septo verticali uno, nonnumquam duobus, ad medium constrictis; ætate secedentibus, flavis dein brunneis, 30-45 \times 10-14.

Hab. ad ramos vetustos decorticatosque, Minnehaha, Americæ borealis.

32. **Pleospora Edwiniæ** Clements in Bull. of the Torr. Bot. Cl. 1903, p. 85. — Peritheciis sparsis, tectis, deinde cortice dejecto superficialibus, depresso-globosis, ostiolatis, vix vel non papillatis, magnis 500-600 μ .; ascis 4-6-sporis, clavatis, jodo non vel indistincte cærulescentibus, 100-120 \times 15; paraphysibus numerosis, linearibus, ascos valde superantibus; sporidiis recte monostichis, late ellipticis 4-5-septatis, uno septo verticali in quoque loculo, ultimis sæpe exceptis, ad septa leviter constrictis, ad secundum semper valde constrictis, fusco-brunneis, 20-25 \times 12-14.

Hab. in ramis siccis Edwiniæ americanæ, Sugar Loaf, Amer. bor.

33. **Pleospora Kentiæ** Maublanc in Bull. Soc. Myc. de France 1903, 2618 fasc. III, p. 291, tab. XIV, fig. 2. — Maculis elongatis, albidis, margine brunneo cinctis; peritheciis punctiformibus, nigris, globosis, immersis, sursum in papillam cylindricam, longiusculam, 70 μ ., desinentibus, 150 μ . diam.; ascis cylindricis 80-85 \times 12; sporidiis monostichis, oblongis, inæquilateralibus, utrinque attenuatis, 3-septatis, medio constrictis, loculo uno vel duobus intermediis longitudinaliter et interdum transverse divisus, ochraceis, 16-18 \times 8-9; paraphysibus diffuentibus.

Hab. in foliis vivis Kentiæ ejusdam in Algeria.

34. **Pleospora Aphyllanthi** P. Henn. Hedw. 1902, p. 135. — Peri- 2619 theciis primo epidermide tectis, dein erumpentibus, subhemisphæricis, submembranaceis, atris, glabris, levibus, papillato-ostiolatis 150-200 μ . diam.; ascis clavatis, apice obtuse rotundatis, basi breve stipitato-curvatis, octosporis, 120-150 \times 25-40; paraphysibus filiformibus, apice subclavatis, septatis, hyalinis, 4 μ . cr.; sporidiis distichis, oblongo-ellipsoideis vel ovoideis, utrinque obtusis, 7-se-

ptatis, muriformibus, plus minus constrictis, melleis dein atro-brunneis, $20-45 \times 12-20$ (medie 30×15).

Hab. in petiolis *Aphyllanthis monspeliensis*, in horto botanico Berolinensi Germaniæ.

35. *Pleospora Convallariæ* Cocc. et Mor. — Syll. IX, pag. 886. — 2620
f. *Polygonati* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 184. — A typo differt peritheciis majoribus $150-200$; sporidiis angustioribus, $35-38 \times 10$, 7-septato-muriformibus.

Hab. in caulibus *Polygonati vulgaris*, Luxemburg. — Perithecia sæpius tam in typo quam in var. setulis conspersa, hinc potius *Pyrenophoræ* spec.

36. *Pleospora socialis* Niessl et Kunze — Syll. II, p. 264. — f. *Lini* 2621
Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 181. — A typo distinguitur peritheciis paullo majoribus, $200-300 \mu$. diam. et glabris; sporidiis 5-septato-muriformibus, $18-24 \times 9-10$.

Hab. in caulibus siccis *Lini* spec., Luxemburg.

37. *Pleospora Sisyrinchii* Speg. Myc. argent. ser. II, 1902, p. 71. — 2622
Maculis nullis; peritheciis primo tectis, dein nudis, superficialibus, sublenticularibus, papillulatis, in sicco sæpius cupulato-collapsis, $250-350 \mu$. diam., coriaccellis; contextu atro-olivaceo, opaco, ostiolo minute papillulato acutiusculo; ascis crasse tunicatis, apice obtusiusculis, deorsum cuneato-attenuatis brevissimeque pedicellatis, $100-140 \times 25$ aparaphysatis; sporidiis distichis, horizontaliter 3-septatis, ad septa constrictulis, 30×15 , loculis septo altero verticali continuo divisus, e latere subcylindræis 10μ . cr. et septo verticali destitutis, primo olivaceis dein atro-olivaceis v. fuliginis.

Hab. ad folia arida *Sisyrinchii juncei*, secus Rio Gallego in Patagonia.

38. *Pleospora spinosella* Rehm — Syll. II, p. 272. — var. *Luzulæ* 2623
Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, pag. 147. — A typo differt ascis sporidiisque conspicue majoribus, nempe ascis $100-180 \times 24-30$ sporidiisque $33-45 \times 12-20$.

Hab. in culmis *Luzulæ maximæ*, Luxemburg.

39. *Pleospora Feltgeni* Sacc. et Syd. — Syll. XVI, p. 547. — var. 2624
Pseudacori Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 183.
— A typo differt sporidiis dimidio minoribus.

Hab. in caulibus *Iridis Pseudacori*, Luxemburg. — var. *Eriophori* Feltg. l. c. — A typo differt ascis 6-8-sporis, clavatis vel cylindræis $205-230 \times 27-33$; sporidiis 7-septato-muriformibus

35-45 \times 13-18, utrinque pallidioribus. In culmis Eriophori angustifolii, Luxemburg.

40. *Pleospora lacustris* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 185. — Peritheciis sparsis, immersis, globoso-depressis, nigris, 200-250 μ . diam., papilla minutissima erumpentibus; ascis clavatis, breve stipitatis, 80 \times 18-20, paraphysatis, octosporis; sporidiis 2-3-stichis, elliptico-fusoideis, obtusis, vulgo curvis, 9-rarius 11-septato-muriformibus, constrictis, flavo-brunneis, 33-40 \times 8-10.

Hab. in caulibus siccis Typhæ angustifoliæ, Luxemburg.

41. *Pleospora Alismatis* Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 16. — Peritheciis sparsis, erumpentibus, hemisphærico-prominulis, paullo convexis 200 μ . diam.; ascis clavato-cylindraceis, breve stipitatis 90-100 \times 12-15, paraphysibus stipatis, filiformibus, obvallatis; sporidiis monostichis v. fere distichis, fusoido-oblongis inæquilatèralibus, 7-9-septatis, muriformibus, 22-27 \times 10-12, raro 15 μ . diam.

Hab. in caulibus emortuis Alismatis Plantaginis, South Dakota, Amer. bor. (D. GRIFFITHS).

42. *Pleospora culmigena* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 145. — Peritheciis gregariis, tectis, globosis, nigris 100-300 μ . diam., ostiolo obtuse conico erumpentibus; ascis clavatis breve nodoso-stipitatis 91 \times 10,5 (tetrasporis) vel 156 \times 10,5 (octosporis), filiformi-paraphysatis; sporidiis 1-2-stichis, ovato-oblongis v. fusoidis, rectis 6-9-frequentius 8-septato-muriformibus, constrictis, flavis, 29-32 \times 10,5.

Hab. in caulibus putridis Cerealium, Luxemburg. — *Pleosporæ straminis* affinis.

43. *Pleospora gigantasca* Rostr. Islands Svampe in Bot. Tidsskrift, 1903, vol. 25, p. 307. — Peritheciis sparsis, globosis; ascis oblongo-claviformibus, 240-250 \times 60-65; sporidiis luteis, 9-septatis, 55-65 \times 23-27 e latere compressis 16-18 μ . cr., ad septa constrictis, reticulariter costatis, guttulatis.

Hab. in foliis Elymi arenarii, Islandia.

44. *Pleospora Glyceriæ* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 145. — Peritheciis gregariis vel sparsis vel seriatis, globosis 300-500 μ . diam., immersis, ostiolo acute conico emergente; ascis tereti-clavatis breve stipitatis, 110-115 \times 15-18, octosporis; sporidiis elliptico-oblongis, rectis curvulisve 9-11-septato-muriformibus, medio constrictis, 1-2-stichis, 21-26 \times 8, flavo-brunneis.

Hab. in culmis siccis Glyceriæ fluitantis, Luxemburg.

45. **Pleospora polymorpha** Maublanc in Bull. Soc. Myc. de France 2630
1903, fasc. 3, p. 291, tab. XV, fig. 1. — Peritheciis aggregatis, longitudinaliter seriatis, nigris, innatis, erumpentibus, basi tenuato-cuneatis, vix papillatis; ascis clavatis $140-170 \times 20-27$; paraphysibus filiformibus; sporidiis oblongis, interdum utrinque attenuatis, parte superiore crassiore, 7-septatis, ad septa leniter constrictis, loculis 1-2 longitudinaliter septis divisus, melleis, $32-36 \times 13-14$, mycelio fusco.

Hab. in paniculis *Gynerii argentei*, Pornic Galliae.

46. **Pleospora Sorghi** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, 2631
p. 181. — Peritheciis sparsis, innatis, globosis, $150-250 \mu$ diam., breve conico-papillatis; ascis cylindræis, breve stipitatis, 6-8-sporis, $102-142 \times 10-13$, filiformi-paraphysatis; sporidiis monostichis oblongo-ellipsoideis vulgo 5-septato-muriformibus, constrictis, flavis, $15-20 \times 7,5-10$, episporio levi.

Hab. in culmis putrescentibus *Sorghi*, Luxemburg. — Affinis *Pleosp. microsporæ*.

47. **Pleospora Farlowiana** Rehm, Ann. Mycol. 1904, p. 177. — Peritheciis sparsis, innatis, globosis, glabris, vix papillulatis, atris ca. 150μ diam.; ascis clavatis $80-90 \times 20$, octosporis; sporidiis ellipticis apice superiore subacutatis, inferiore rotundatis, 3-septatis, cellulis mediis rarius et apicalibus semel longitudinaliter divisus, medio interdum subconstrictis, melleis, $20-22 \times 10-12$, distichis; paraphysibus ramosis.

Hab. ad *Selaginellam rupestrem*, White Fish Lake, Ontario, Amer. bor. (FARLOW). — A ceteris *Lycopodiorum* incolis, sporidiis minus septatis minoribusque plane diversa species.

48. **Pleospora filicina** Feltg. Vorstud. Pilz. Luxemb. 1903, Nachtr. 2633
III, p. 186. — Peritheciis gregariis vel sparsis, cuticula tectis, globoso-depressis vix papillatis, brunneis, $80-150 \mu$ latis; ascis cylindræis, breve stipitatis $136-150 \times 15-17$, octosporis; paraphysibus . . . non visis; sporidiis monostichis, elliptico-cylindræis, obtusis, rectis, 3-rarius 5-septato-muriformibus, brunneis $22-27 \times 10-11$.

Hab. in stipitibus *Pteridis aquilinæ*, Luxemburg. — A *Pleosp. Pteridis* bene distincta.

PYRENOPHORA Fr. — Syll. II p. 277, IX p. 895, XI p. 344, XIV p. 602, XVI p. 549.

1. **Pyrenophora flavo-fusca** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2634

1903, p. 202. — Peritheciis gregariis v. subcaespitosis, subcutaneis, globoso-depressis dein erumpentibus 100-150 rarius 250 μ . diam., ostiolo minute conico-papillato præditis, inferne flavidis, sursum brunneis et setis 40-80 \times 5-8 nigricantibus vestitis; ascis elliptico-clavatis, breve crasse stipitatis, filiformi-paraphysatis, 8-sporis, 125-150 \times 27-40; sporidiis subdistichis, late ellipsoideis, rectis 7-septato-muriformibus, constrictis, sursum crassioribus e flavo brunneis, 33-37 \times 13-16.

Hab. in sarmentis siccis Clematidis Vitalbæ, Luxemburg.

2. **Pyrenophora Clematidis** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2635 p. 23. — Peritheciis nigris, tectis, dein erumpentibus, 150-175 μ . diam., profunde collabentibus, setulis rigidulis brunneis 30-50 μ . longis, parce vestitis, ostiolo papillatis; ascis obovatis 80-90 \times 20-25; paraphysibus filiformibus; sporidiis distichis, ovalibus 5-7-septatis, loculis 1-2 longitudinaliter divis, luteo-brunneis dein brunneo-opacis, 20-30 \times 12-15.

Hab. in caulibus emortuis Clematidis ligusticæfoliæ, Hermosa, South Colorado, Amer. bor.

3. **Pyrenophora Castillejæ** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2636 p. 23. — Peritheciis sparsis, nigris, tectis dein erumpentibus, 150-200 μ . d., collabentibus, setulis fuscis, crispulis 40-100 \times 4, superne vestitis, poro pertusis parce papillatis; ascis ovoideis vel obovatis 80 \times 30; paraphysibus filiformibus,asco longioribus; sporidiis distichis ovoideis, 5-7-septatis, 2-3 longitudinaliter divis, initio luteolis 1-septatis, dein intense brunneis, 25-30 \times 10-12.

Hab. in caulibus emortuis Castillejæ, Hermosa, South Colorado, Amer. bor. — *P. Eriogoni* affinis.

4. **Pyrenophora Eriogoni** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2637 pag. 24. — Peritheciis sparsis, tectis dein erumpentibus, intense brunneis, 250 μ . diam., subapplanatis; setulis, raro septatis, inferne intense fuscis, sursum fere hyalinis, 80-150 \times 4; ostiolo incospicuo; ascis cylindraceutis, crasse tunicatis 120 \times 25; paraphysibus numerosis, filiformibus; sporidiis ovatis utrinque obtuse rotundatis, brunneis, 7-septatis, ad septum medianum constrictis, longitudinaliter 2-4-septatis, 25-30 \times 12.

Hab. in caulibus emortuis Eriogoni, Hermosa, South Colorado Amer. bor.

5. **Pyrenophora cernata** (Niessl) Sacc. — Syll. II, p. 236. — var al- 2638
pina Ferraris, Malp. 1904, pag. 489. — Peritheciis setulis paucis sed longis, rigidis, rectis, usque 120 μ . long; ascis 90-100 \times 16-

18; sporidiis $19 \approx 9$, intense brunneis, subinde medio constrictulis.

Hab. in foliis emortuis *Alsines aretioidis*, Riva Valdobbia Ital. bor. (CARESTIA).

6. **Pyrenophora Pestalozzæ** Magn. in Bull. Herb. Boissier 1903, 2639 n. 7, p. 582, tab. IV, fig. 15-20. — Peritheciis hinc inde sparsis, subepidermicis, atris, subcarbonaceis, setulis rigidulis, filiformibus prope ostiolum vestitis; ascis oblongo-clavatis brevissime stipitatis octosporis; sporidiis subdistichis, 7-septato-muriformibus, medio vix constrictis, $34-35 \approx 13,5$ brunneis.

Hab. in foliis siccis *Alsines Pestalozzæ* in jugis alpinis Phrygiæ.

7. **Pyrenophora polyphragmoides** Saccardo et Scalia Harrim. Alaska 2640 Exped. Crypt. p. 28, pl. V, fig. 13. — Peritheciis erumpentibus, sparsis, punctiformibus, nigris, globulosis, $190-220 \mu$ diam., setis rigidis, fuscis septatis, $160-190 \approx 7-5$, vertice vestitis; contextu parenchymatico, fuligineo; ascis cylindræis, rectis curvulisve, apice rotundatis, brevissime oblique stipitatis, octosporis; sporidiis distichis, oblongo-fusoideis, utrinque obtusulis, initio 3-septatis, dein sub-7-septatis, melleis, tandem 9-12-septatis, murali-divisis, medio vix v. non constrictis, $36-56 \approx 18$, fuligineis.

Hab. in caulibus et foliis emortuis *Polemonii humilis*, Popof Island, Alaska (HARRINGTON). — Affinis *Pyren. phaeosporæ* et *P. polyphragmæ* sed rite distincta.

8. **Pyrenophora Salsolæ** Griffiths — Syll. XVI, pag. 549. — var. 2641 *Majanthemi* Feltg. Vorstud. Pilz. Lux. Nachtr. III, 1903, p. 204. — A typo differt peritheciis minoribus $150-200 \mu$ diam. lenticularibus, setis validioribus vestitis sporidiisque irregularibus flavo-brunneis, 5-septato-muriformibus.

Hab. in pag. super. foliorum *Majanthemi bifolii*, Luxemburg.

PLEOMASSARIA Speg. — Syll. II p. 239, IX p. 872, XI p. 341, XVI p. 552.

1. **Pleomassaria Magnoliæ** Shear in Bull. of the Torr. Bot. Cl. 1902, 2642 p. 455. — Peritheciis gregariis, immersis, subcutaneis, depressosphæricis vel sublenticularibus, coriaceo-carbonaceis $600-800 \mu$ diam., ostiolo conico erumpenti donatis; ascis clavatis, breve stipitatis, octosporis, $195-230 \approx 55-60$; paraphysibus filiformibus; sporidiis irregulariter dispositis, oblongo-clavatis, ad septum medianum

constrictis, initio hyalinis 3-6-septatis, dein olivaceis, septato-muriformibus, postremo brunneis, muco obvolutis, 66-78 \times 21-23.

Hab. in ramis corticatis *Magnoliæ* obovatæ, Washington, Amer. bor. — Pycnidium est *Camarosporium Magnoliæ* Shear.

TEICHOSPORA Fuck. — Syll. II p. 290, IX p. 899, XI p. 345, XIV p. 603, XVI p. 550.

I. *Eu-Teichospora*.

1. **Teichospora Davidssonii** Rostr. Islands Svampe in Bot. Tidsskrift, 2643 1903, vol. 25, p. 309. — Peritheciis gregariis, primitus sub epidermide nidulantibus, dein superficialibus, 300-500 μ . diam., breviuscule papillatis; ascis breviter et abrupte pedicellatis, cylindraceis, 130 \times 20; sporidiis monostichis, ellipsoideis, 3-4-septatis, loculo uno alterove septulo longitudinali diviso, flavis vel dilute fuscis 28-32 \times 10-15.

Hab. in gemmis *Salicis* lanatæ, Islandia (O. DAVIDSSON).

2. **Teichospora Cerasi** (Feltg.) Sacc. et Syd. — Syll. XVI, p. 1139 2644 (nomen) *Strickeria* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 197. — Peritheciis gregariis corticis fibris semiimmersis, globoso-ellipsoideis 150-250 μ . diam., nigris, minute papillatis; ascis cylindraceis, breviter stipitatis, filiformi-paraphysatis, 117-126 \times 10,5-13; sporidiis monostichis, cylindraceo-ellipsoideis, utrinque rotundatis, 5-septatis, profunde constrictis, flavis, 15-18 \times 7-9,5, cellulis mediis 4, longitrorsum 1-septatis.

Hab. in ramis decorticatis *Cerasi* avium, Luxemburg.

3. **Teichospora disconspicua** Rehm, Cest. Bot. Zeitschr. 1903, p. 11. 2645 — Peritheciis dispersis, sessilibus, globulosis, non collabentibus, vix papillulatis, atris, glabris, fusce parenchymatice contextis, 180 μ . diam.; ascis clavatis, apice rotundatis, 50-60 μ . long., 15 μ . latis, octosporis; sporidiis oblongis, vix ellipsoideis, utrinque obtusis, transverse 3-dein 5-septatis, una alterave cellularum mediarum semel longitudinaliter divisis, unaquaque cellula guttulam oleosam magnam continentibus, ad septa vix constrictis, dilute hyalino-fuscidulis, 15 \times 7, distichis; paraphysibus ramosis 1,5 μ . cr.

Hab. ad frustula putrescentia Pini, in Tirolia. — Jodi ope paraphyses mucosæ dilute vinoso-rubro tinguntur.

4. **Teichospora subcorticalis** (Feltg.) Sacc. et D. Sacc. *Strickeria sub-* 2646

corticalis Feltg. Vorst. Pilz. Luxemb. Naektr. III, 1903, p. 274.
— Peritheciis sparsis vel gregariis, erumpentibus, basi insculptis, globosis vel subconoidis non collabascentibus, nigris, membranaceo-coriaceis, extus rugulosis 250-350 μ . diam. ostiolo globuloso vel breve cylindraceo; ascis cylindraceis, octosporis, breve stipitatis 108-121 \approx 10-11, filiformi-paraphysatis; sporidiis monostichis, elliptico-ovoideis vel clavulatis, sursum amplioribus, 3-septato-muriformibus, leviter constrictis, flavo-brunneis, 16-18 \approx 8.

Hab. in cortice interiore Piri communis, Luxemburg.

5. **Teichospora Symphoricarpi** (Tracy et Earle) Sacc. et D. Sacc. *Stri-* 2647
ckeria Symphoricarpi Trac. et E. Plantæ Baker. I, pag. 30. — Peritheciis sparsis vel subgregariis in areis nigrescentibus, carbonaceis, nigris, globosis 0,5-1 mm. diam., rugosis, ostiolo minute papillato donatis; ascis cylindraceis, breve stipitatis 150-200 \approx 16; paraphysibus numerosis, filiformibus; sporidiis monostichis, fere ovalibus, initio luteis, 1-septatis, et valde constrictis, dein fuscis, 3-5-septatis, postremo 7-septatis, ad septum centrale constrictis, 25 \approx 12, longitudinaliter divisis.

Hab. in ramulis decorticatis *Symphoricarpi* spec. Bob Creek Colorado, Amer. bor. — *T. strigosæ* E. et Ev. affinis.

6. **Teichospora nivalis** v. Höhn. in Rehm Ascom. exs. n. 1564 et 2648
Ann. Mycol. 1904, p. 518. — Peritheciis superficialiter sessilibus, dispersis v. 2-3-congregatis, globulosis, vix ostiolatis, demum sæpe paullulum collabentibus, atris, scabris, carbonaceis, fragilibus, 750 μ . diam.; ascis cylindraceis, apice rotundatis, vix incrassatis 225-280 \approx 17-18 in stipitem brevem nodulosum 40 \approx 4 tenuatis, 6-8-sporis; sporidiis oblongo-ellipsoideis, utrinque rotundatis, apices versus attenuatis, transverse 7-12-longitudinaliter 2-3-septatis, fuscis, 33-40 \approx 14-14,5, monostichis; paraphysibus numerosissimis, ascos superantibus, sæpe ramosis, 1-1,5 μ . cr.

Hab. in spinis rhachidis *Astragali* sp. in alveis nivalibus ad 2700-2900 m. ad Argasum Asiæ minor. (Dott. E. ZEDERBAUER).
— Asci subinde minores 190 \approx 15 et tunc sporidia 25 \approx 10, tantum 7-8-septata.

7. **Teichospora pilosa** Bacc. in N. Giorn. bot. ital. 1904, p. 416. — 2649
Peritheciis sparsis, superficialibus, globosis 300 μ . diam. minute ac inconspicue papillatis, levibus vel basi tantum setis rigidis cinctis; subiculo atro ex hyphis erectis simplicibus 100 \approx 15, forsitan conidiiferis, insidentibus; ascis cylindricis paraphysibus tenuibus hyalinis, æquilongis obvallatis, 200 \approx 17; sporidiis trans-

verse triseptatis ad medium constrictis, loculis extremis pallidioribus, medianis longitudinaliter septatis, oblique monostichis 30×13 .

Hab. ad caules siccos herbarum quarundam, Pisa Italiæ. — Præsertim subiculi dematiacei præsentia species dignoscitur.

II. *Strickeria* Körb.

8. **Teichospora Amelanchieris** (Earle) Sacc. et D. Sacc. *Strickeria Ame-* 2650
lanchieris Earle, Plantæ Bakerianæ, fasc. II, Fungi p. 14. — Peritheciis sparsis vel interdum gregariis, nigris, levibus, valde collapsis 350μ . diam., ostiolo indistincto pertusis; ascis clavato-cylindraceis 100×6 ; paraphysibus filiformibus suffultis; sporidiis subdistichis, subovalibus, sæpe curvulis, 5-7-septatis, muriformibus, ad septum medianum constrictis, $30-35 \times 7-10$.

Hab. in ramulis decorticatis *Amelanchieris* spec. Hermosa, Colorado, Amer. bor.

9. **Teichospora Cercocarpi** (Earle) Sacc. et D. Sacc. *Strickeria Cerco-* 2651
carpi Earle, Plantæ Baker. fasc. II, Fungi p. 14. — Peritheciis in ligno nigrificato immersis sparsis, vel 3-4 cæspitoso-congestis, nigris, rugosis, superne collapsis, circ. 500μ . diam., ostiolo minute papillato, inconspicuo donatis; ascis cylindraceis, breve stipitatis, ca. 100×10 ; paraphysibus numerosissimis, filiformibus,asco longioribus; sporidiis monostichis subovatis, intense brunneis, 7-septatis muriformibus, ad septum medianum constrictis, superne obtusis vel subacutis, $20-25 \times 8$.

Hab. in ramis decorticatis *Cercocarpi*, Hermosa, South Colorado, Amer. bor.

10. **Teichospora Populi** (Earle) Sacc. et D. Sacc. *Strickeria Populi* Earle 2652
Plantæ Bakerianæ f. II, Fungi p. 15. — Peritheciis sparsis, nigris, lucentibus, 500μ . diam., subglobosis, demum leniter collapsis vel superne incis, ostiolo simplici pertusis; ascis 80×16 ; sporidiis monostichis, initio luteolis dein brunneis, 3-septatis, ad septa constrictis, muriformibus, utrinque obtusis, $13-20 \times 8-10$.

Hab. in ramis decorticatis *Populi angustifoliæ*, Durango, Colorado, Amer. bor.

11. **Teichospora Fendleræ** (Earle) Sacc. et D. Sacc. *Strickeria Fendleræ* 2653
Earle Plantæ Bakerianæ fs. II, Fungi p. 15. — Peritheciis sparsis vel gregariis, nigris, lucentibus, collapsio-patelloideis $200-300 \mu$. diam.; ascis cylindraceis, crasse tunicatis, $80-100 \times 20$, paraphysibus filiformibus, obvallatis; sporidiis distichis, oblongis, utrinque

obtuse rotundatis, 4-septatis, muriformibus, initio hyalinis, dein brunneis 25-30 \times 10.

Hab. in ramis Fendleræ rupicolæ, Hermosa, Colorado, Amer. bor.

12. *Teichospora rhoïna* (Earle) Sacc. et D. Sacc. *Strickeria rhoïna* 2654

Earle Plantæ Bakerianæ fasc. II, Fungi p. 16. — Peritheciis dense sparsis, basi profunde immersis, nigris 500-750 μ . diam. denique collapsis, ostiolo minute papillato donatis; ascis cylindræis breve stipitatis 100-120 \times 10; paraphysibus filiformibusasco longioribus; sporidiis monostichis, ovatis, luteis vel brunneo-lucentibus, 3-4-septatis, dein 5-7-septatis, muriformibus, ad septum medianum leviter constrictis, 20 \times 8.

Hab. in ligno decorticato *Rhois trilobata*, Hermosa, Colorado, Amer. bor. — *Teichosporæ rhypodii* affinis.

PLEOSPHÆRIA Speg. — Syll. II p. 304, IX p. 910, XI p. 347, XIV p. 607.

1. *Pleosphæria albidans* Bäumler, Beitr. z. Cryptog. Fl. des Presb. 2655

Comit. 1902, pag. 32. — Peritheciis gregariis, innatis, dein plus minus superficialibus, globosis, 150-300 μ . diam., subcarbonaceis, extus rugosis pilisque brunneis, brevibus 3-4 μ . cr., vestitis, ostiolo minuto rotundo non collabascente; ascis breve stipitatis 80-90 \times 10-12, copiose filiformi-paraphysatis, octosporis; sporidiis distichis, plerumque ascos totos implentibus, 16-19 \times 7-8, utrinque rotundatis, vulgo deorsum paullo tenuatis 5-7-septato-muriformibus, medio leviter constrictis, brunneolis.

Hab. in ligno dealbato, decorticato *Aceris*, in comitatu Presburg Hungariæ.

2. *Pleosphæria Lithospermi* Clements in Bull. of the Torr. Bot. Cl. 2656

1903, p. 83. — Peritheciis sparsis, superficialibus, submembranceis, globosis deinde collabentibus, minute papillatis, extus pilis simplicibus, septatis, brunneis 150 \times 4-5, obsitis, sed vertice nudis 250 μ . diam.; ascis octosporis, late clavato-oblongis, paraphysatis, jodo non cærulescentibus, 120-140 \times 20-25; sporidiis monostichis, oblongo-ellipticis, luteo-brunneis, 7-septatis, loculis 2-3-septatis, ad septum medium valde constrictis, ad cetera leniter constrictis 25-30 \times 14-15.

Hab. ad caules emortuos *Lithospermi parviflori*, Cross Ruxton, Minnehaha, Amer. bor.

3. *Pleosphæria xenochæta* Penz. et Sacc. in Malpighia 1902, p. 227 (ex 2657

errore sub *Teichospora*). — Peritheciis dense gregariis, superficialibus, globulosis, minutis, carbonaceis, nigris 250-260 μ . d., vertice imperspicue papillatis, demum facile fractis et inæqualiter apertis, ubique laxe setulosis; setulis tereti-cuspidatis, pro loco plus minus longis, 50-100 \approx 7, continuis, aterrimis, sæpius curvulis, apice peculiariter oblique acuteque rostellatis et sub rostello pallidiores septatis; ascis jam resorptis; sporidiis maximis, obovatis vel suboblongis, utrinque obtusulis 95-100 \approx 28-36, rarius 56-58 \approx 30, deorsum paullo angustioribus 9-11-septatis septisque longitudinalibus pluri-seriatis, ad septa leviter constrictis, fuliginis.

Hab. in petiolis Palmarum putrescentibus, Tjibodas, in insula Java. — Contextus peritheciis parenchymaticus, fuliginæus. Perithecia basi hyphis myceliis septatis, ramosis, ochraceis cincta.

CROTONOCARPIA Fuck. — Syll. II p. 306, IX p. 912.

1. *Crotonocarpia moriformis* Fuck. — Syll. II, p. 306 — Teste cl. v. Höhnelt (in Ann. Mycol. 1903, pag. 523) ex autopsia exempl. Fuckeliani est *Cucurbitaria Berberidis* in Berberidis ramis, nec in Rubo. Etiam *Crotonocarpia moriformis* Fuck., Feltgen Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 290 ex ipsius complorati auctoris declaratione in litt. ad cl. H. Sydow (22-I-1904) est ipsissima *Cucurbitaria Berberidis* non in Junipero sed in Berberide! Singulare quod præclari mycologi Fuckel, Winter et Feltgen cum de fungo tum de ejus matrice decepti fuerint!

CUCURBITARIA Gray — Syll. II p. 307, IX p. 915, XI p. 348, XIV p. 607.

1. *Cucurbitaria arizonica* Ell. et Ev. in Journ. of Myc. 1902, vol. 8, 2658 p. 16. — Peritheciis erumpenti-superficialibus, 500 μ . diam., dense sparsis inferne collapsis, globosis, fusco-nigris, ostiolo præditis; ascis cylindræis, p. sp. 75-80 \approx 12, breve stipitatis, paraphysatis; sporidiis generaliter oblique monostichis, oblongo-ellipticis, 3-septatis et submuriformibus, medio septo paullo constrictis, initio luteolis dein brunneo-nigris, 14 \approx 6-8.

Hab. in ramis emortuis Acaciæ Grayii, Tucson, Arizona, Amer. bor. (D. GRIFFITHS).

2. *Cucurbitaria Typhinae* Ell. et Ev. in Journ. of Myc. 1903, 2659 p. 166. — Peritheciis subglobosis circ. 500 μ . diam., 2-6-congestis, erumpentibus; ostiolo papillato, inconspicuo, interdum subcompresso; ascis cylindræis 120-150 \approx 15, subpedicellatis, octosporis;

paraphysibus nullis vel indistinctis; sporidiis monostichis, oblongis vel oblongo-ellipticis, indistincte 6-septatis et muriformibus, parce constrictis, luteolis, $22-27 \times 12$, dein subopacis et cellulis extimis subhyalinis.

Hab. in caulibus emortuis *Rhois typhinae*, Harraby, Lake Resseau, Ont., Canada, Amer. bor.

3. *Cucurbitaria juglandina* Ellis et Barth. in Journ. of Mycol. 1902, 2660 p. 174. — Peritheciis erumpentibus 5-10-congestis, 500 μ . diam. ostiolo inconspicuo donatis; ascis cylindraceis breve stipitatis, paraphysatis, $100-120 \times 8-10$; sporidiis monostichis, oblongo-obvatis 3-dein 5-7-septatis, luteo-brunneis, ad septum medium subconstrictis, $15-22 \times 8-10$, longitudinaliter septatis.

Hab. in ramis emortuis *Juglandis nigrae*, Rooks Co. Kansas, Amer. bor. — Ab affini *Cuc. Juglandis* differt ascis cylindraceis et sporidiis minoribus.

4. *Cucurbitaria Celtidis* Shear in Bull. of the Torr. Bot. Cl. 1902, 2661 p. 451. — Peritheciis 350-500 μ . d., dense gregariis v. subcaespitosis, areas latas occupantibus, erumpentibus et basi subimmersis, depresso-globosis, carbonaceis, rugulosis, collapsis, ostiolo papillato donatis; ascis cylindraceis, breve stipitatis vel subsessilibus, $140-180 \times 16$; sporidiis monostichis, initio hyalino-luteolis, maturitate intense brunneis, transverse 3-5-septatis, longitudinaliter 1-septatis, ad septa leviter constrictis, $24-27 \times 8$; paraphysibus superne ramosis, 3 μ . diam.

Hab. in ramis emortuis *Celtidis occidentalis*, Osborne, Kansas, Amer. bor.

5. *Cucurbitaria Pritzeliana* P. Henn. in Hedw. 1903, p. (50). — Peritheciis erumpenti-superficialibus, botryose aggregatis, membranaceis, subglobosis v. ovoideis, granuloso-verrucosis, atris, contextu pseudoparenchymatico atro-fusco, ca. 240-280 μ . diam. basi hyphis fuscis, septatis, ramosis, ca. 2,5-3,5 μ . cr.; ascis clavatis, apice rotundatis, crasse tunicatis, $100-130 \times 20-40$, octosporis; paraphysibus obvallatis, copiosis apice fusciculis; sporidiis subdistichis vel subtristichis, fuscoideis, interdum utrinque hyalino-papillatis, pluri-septatis, muriformibus, primo rufo-brunneis, dein atro-castaneis $25-50 \times 9-18$.

Hab. in ramis corticatis, flum. Russel, N. Queensland Australiae (PRITZEL).

FENESTELLA Tul. — Syll. II p. 325, IX p. 922, XI p. 349, XIV p. 610, XVI p. 553.

1. **Fenestella gigaspora** P. Henn. in Engl. Bot. Jahrb. 1901, p. 41. 2663
— Syll. XVI pag. 1139 (nomen). — Stromatibus carbonaceis, atris, rotundato-pulvinatis, sub epidermide vertice applanato subnitenti erumpentibus, ca. 2 mm. diam.; peritheciis immersis, paucis 2-3 subglobosis; ascis cylindraceis 5-8-sporis, apice obtusis, 35-50 μ . cr.; paraphysibus copiosis, filiformibus, guttulatis, hyalinis 2-2,5 μ . cr.; sporidiis monostichis, oblonge ellipsoideis utrinque rotundatis, primo pallide flavis dein atro-brunneis, pluriseptato-fenestratis, plerumque 9-septatis, haud constrictis, 70-90 \times 35-45.

Hab. in ramis emortuis, Togo Africae.

2. **Fenestella Prunastri** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2664
1903, pag. 121. — Stromatibus 1 mm. diam., gregariis, sparsis, conoideis, epidermide tumidula tectis, disco subrotundo, sordide brunneo, erumpente et epidermidis laciniis cincto; peritheciis 4-6 in quoque stromate, globosis, monostichis, collis brevibus adscendentibus, demum rostellatis, sed discum vix superantibus; ascis crasse clavatis, longiuscule stipitatis, filiformi-paraphysatis, 115-124 \times 22, octosporis; sporidiis distichis, oblongo-ellipsoideis, rectis curvulisve plerumque 3-rarius 4-septatis, leviter constrictis, cellulis longitrorsum 1-3-partitis, flavis, 20-22 \times 8-9.

Hab. in ramis corticatis siccis Pruni spinosæ, Luxemburg.
— *Fenestellæ Lycii* proxime affinis.

3. **Fenestella Höhneliana** Rehm ap. Höhn. Ann. Mycol. 1904, p. 45. 2665
I. Fungus ascophorus. — Peritheciis sparsis vel ad 2-10 valsoideo-aggregatis, peridermio tectis, applanato-sphæroideis, 500-830 μ . latis, 300-400 μ . altis, contextu 30-40 μ . crasso, carbonaceo; collo subtus bene discreto, crasse tunicato (tunica usque 100 μ . crassa), ca. 300-400 μ . crasso et alto, late (usque 140 μ .) perforato, apice incrassato, sæpe fere infundibuliformiter dilatato, peridermium perforante; ascis cylindraceis, supra rotundatis, breve pedicellatis, 180-250 \times 16-18, octo-(sed etiam 2-7)-sporibus, paraphysibus numerosis, septatis, filiformibus, 3 μ . crassis, guttulis oleosis faretis, obvallatis; sporidiis plerumque oblique monostichis, ellipsoideis, non constrictis, primum flavis, dein fuliginis, 6-8- (plerumque 7) -septatis, septis longitudinalibus 2-3 muriformiter divisis, 25-34 \times 12-16. —
II. Fungus pycnidicus: *Dendrophoma Fenestellæ* v. Höhn. l. c.
— Pycnidiis habitu peritheciis simillimis, intermixtis vel sparsis,

intus sporophoris dendroideo- vel fasciculato-ramosis, 30-60 \times 1, dense obtectis; sporulis hyalinis, rectis vel curvulis, 3-6 \times 1.

Hab. in ramulis emortuis corticatisque Berberidis vulgaris prope Silz (Oberinntal) et prope Gries (Sellrain) Tiroliae (Doct. REHM) et in ditione Tumpen (Oetzthal) Tiroliae (v. HÖHNEL). — Affinis *F. Amorphæ* Ell. et Ev.

THYRIDIDIUM Sacc. — Syll. II p. 323, IX p. 920, XI p. 348, XIV p. 609, XVI p. 553.

1. **Thyrididium platense** Speg. Myc. argent. Ser. II, 1902, p. 73. — 2666

Stromatibus effusis per matricem laxè excurrentibus, linea nigra limitatis; peritheciis stromate vel ligno fere immutato immersis, dense constipatis, globosis, parvis 0,3-0,8 mm. d., ostiolo quandoque brevissimo non exserto quandoque longiuscule exserto donatis; contextu minuto densissime parenchymatico parum distincto, olivaceo; ascis cylindraceutis, breviter pedicellatis, 160-180 \times 12-18, densiuscule paraphysatis, octosporis; paraphysibus mucosis, guttulatis; sporidiis rectis vel oblique monostichis, levibus, sæpius 3, rarius 5-septatis, ad septa parum constrictis, septo altero longitudinali continuo divisus, loculis grosse 1-guttulatis, primo hyalinis dein fusco-fuligineis.

Hab. ad ramos vetustos Manihotis carthagenensis, La Plata in Argentina.

2. **Thyrididium stilbostomum** Ell. et Ev. in Journ. of Mycol. 1903, 2667

p. 223. — Peritheciis globosis 350-500 μ . diam., sparsis vel in stromate 3-5-congestis, ostiolo depresso-hemisphærico, nigro donatis; ascis cylindraceutis, stipitatis, paraphysatis, p. spor. 75-80 \times 8-10; sporidiis monostichis, ellipticis, brunneis 6-7-septatis, submuriformibus, ad septum medium plus minusve constrictis, 22-27 \times 7-10.

Hab. in ligno decorticato, emortuo Aceris saccharini, London, Colorado, Amer. bor.

Sect. 10. Scolecosporæ.

DILOPHIA Sacc. — Syll. II p. 357, IX p. 937, XIV p. 617.

1. **Dilophia Sempervivi** Rick, Bot. Zeitschr. 1903, p. 161. — Peri- 2668

theiis numerosis, per epidermidem transparentibus, vix erumpentibus, brunneis, 500 μ . diam., contextu e cellulis parvis, guttulatis

composito; ascis octosporis $150 \approx 8$; sporidiis cylindraceis $50-70 \approx 2$ apicem versus apiculatis, curvato-sinuatis, hyalinis, multi-septatis et multi-guttulatis.

Hab. in caule *Sempervivi*, Vorarlberg Austriae.

ACERBIA Sacc. — Syll. XI p. 363, XIV p. 619.

1. *Acerbia rhopalasca* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2669
1903, pag. 179. — Peritheciis sparsis vel gregariis, ligno omnino immersis, sæpe superficiem ligni tumefacientibus, 500 μ . diam., papilla applanata emergente; ascis rectis, lineari-clavatis, longe tenuato-stipitatis, apice rotundatis, $76-100 \approx 3-5$, filiformi-paraphysatis; sporidiis filiformibus, superne rotundatis, basi acutiusculis, medio nodulosi et obsolete septatis, hyalinis, $76-100 \approx 1-2$, eguttulatis vel 1-serialiter guttulatis.

Hab. in ligno decorticato quercino, Luxemburg.

ACERBIELLA Sacc. n. g. (Etym. ab *Acerbia* cui affinis). — A proximo gen. *Acerbia* differt peritheciis setigeris, ab *Ophiocerate* cum peritheciis erostribus tum indumento piloso.

1. *Acerbiella macrospora* (Rick) Sacc. et D. Sacc. *Lasiosphaeria macrospora* Rick, Broteria, 1904, p. 290. — Peritheciis late gregariis ab initio superficialibus, 1 mm. diam., globosis, pilis rigidis acutis atro-umbrinis usque ad medium vestitis, ostiolo glabro minutulo, sed bene distincto; ascis cylindraceis, sessilibus, 8-sporis, $200 \approx 10$, sursum tenuatis; sporidiis anguiformibus, multi-septatis usque $100 \approx 3-4$, apicem versus angustioribus, ad septa subconstrictis, 1-guttulatis.

Hab. ad ligna fabrefacta Rio Grande do Sul Brasilæ.

CRYPTODERIS Auersw. — Syll. II p. 229, IX p. 771, XVI p. 535. 2671

1. *Cryptoderis caricina* Rehm Ascom. exs. n. 1557 et Ann. Mycol. 1904, p. 519. — Peritheciis innatis, globulosis, usque 300 μ . d., ad basim hyphis permultis simplicibus, fuscis, septatis 4 μ . cr. obsessis, rostro filiformi, apice hyalino, obtuso, $180-500 \approx 90$ prominente, contextu perithecii parenchymatico, haud carbonaceo; ascis tereti-subclavatis, apice rotundatis, $70-80 \approx 8-9$, octosporis; sporidiis bacillaribus, apice obtusis, basim versus acutatis, subcurvatis, grosse 4-6-guttatis demum 3-5-septatis, $30-33 \approx 3-3,5$, popolystichis, hyalinis; paraphysibus nullis.

Hab. ad folia putrida Caricis vulpinæ, Götta Saxonia (FEURICH).

OPHIOBOLUS Riess — Syll. II p. 337, IX p. 923, XI p. 351, XIV p. 614, XVI p. 557.

1. **Ophiobolus eburensis** Sacc. — Syll. II, p. 342. — f. *Hellebori* Feltg. 2672
Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 167. — A type vix differt præter matricem, peritheciis demum depresso-concavis, ostioliis breviter cylindræis, sporidiisque, apice rotundatis, basi acutatis, minute pluriguttulatis $120-130 \times 1,5-2$, ex hyalino flavidis.

Hab. in caulibus siccis Hellebori viridis, Luxemburg.

2. **Ophiobolus oxysporus** (Feltg.) Sacc. et D. Sacc. *Leptosphaeria oxy-* 2673
spora Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 165. — Peritheciis gregariis, omnino innatis, globoso-depressis, $200-300 \mu$ diam., ostiolo peritheci longitudine, tenui cylindræo; ascis toruli-clavatis, sensim tenuato-stipitatis, apice rotundatis, $104 \times 6,5$, filiformi-paraphysatis; sporidiis parallele fasciculatis, longe fusoides, utrinque acutissimis, $1-2$ -curvatis, medio constricto-1-septatis, quaque cellula tenuissime $3-4$ -septata guttulateque, hyalinis, $78 \times 1,5-2,5$.

Hab. in ramis siccis Rubi idæi, Luxemburg.

3. **Ophiobolus carneus** v. Höhnelt Fragm. zur Mykol. 1903, p. 10. — 2674
Peritheciis $400-500 \mu$ latis, nigris, primum ligni fibris tectis, demum erumpentibus, superficialibus, collabascendo cupulatis, a basi dense fibrillosis; paraphysibus filiformibus, 3μ crassis; ascis cylindræo-clavatis, $150-200 \times 8$ octosporis; sporidiis $100-120 \times 2,5-3$, filiformibus, medio noduloso-incrassatis, hyalinis, catervatim dilute roseis vel fere carneis, acute septatis (cellulis $6-7 \mu$ longis).

Hab. in ligno denudato ramulorum Staphyleæ pinnatæ in silvis Wienerwald, vallis « Wassergespreng » dictæ, Austriæ inferioris.

4. **Ophiobolus surculorum** Pass. — Syll. IX, p. 930. — var. *Deutziae* 2675
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, p. 174. — Differt a typo peritheciis non collabentibus, hyphis basilaribus copiosis; ascis perfecte cylindricis, $140-160 \times 8$; sporidiis utrinque obtusis, distincte septatis, $120-136 \times 2,5-3$, flavo-brunneolis.

Hab. in ramulis siccis corticatis Deutziae scabræ, Luxemb.

5. **Ophiobolus camptosporus** Sacc. — Syll. II, p. 344. — var. *gona-* 2676
tosporus Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 143

et Nachtr. III, p. 174 (ut var. *sorbicola*). — A typo differt ostioliis breve cylindraceis, ascis angustioribus, 104-160 \approx 8,5-10; sporidiis vulgo pluri-septatis, 3-4 nodulosis et profundius constrictis, flavo-brunneolis.

Hab. in ramulis siccis Sorbi Ariæ, Luxemburg.

6. **Ophiobolus porphyrogonus** (Tode) Sacc. — Syll. II, pag. 338. — 2677
var. **Astragali** P. Henn. Hedw. 1902, p. 135. — Peritheciis primo tectis, dein erumpentibus, globoso-conicis, nigris 400-600 μ . d., plerumque in maculis caulium rubris dispositis; ostiolo pertusis 60 μ . diam.; ascis cylindraceis, breve pedicellatis, 160-250 \approx 4-6, generaliter longioribus quam in typo; paraphysibus filiformibus 2 μ . cr. hyalinis; sporidiis septatis filiformibus, 140-220 \approx 1-1,5, hyalinis.

Hab. in caulibus Astragali sp. ex Armenia cultæ in horto botanico Berolinensi Germaniæ.

7. **Ophiobolus Sarothamni** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 174. — 2678
Peritheciis sparsis gregariisve, omnino immersis, globosis, nigris, 300 μ . diam., ostiolo acute conoideo emergente; ascis cylindricis, breve stipitatis, 125-136 \approx 5,5-7, octosporis; sporidiis filiformibus, utrinque obtusis, flexuosis, hyalinis, pluri-guttulato-septulatis, 125 \approx 2.

Hab. in ramis corticatis Sarothamni, Luxemburg.

8. **Ophiobolus acerinus** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 175. — 2679
Peritheciis sparsis, basi insculptis, globoso-depressulis, rugulosis, nigris, 500-1000 μ . diam., ostiolo cylindraceo vel conoideo; ascis cylindricis, breve stipitatis, 100-130 \approx 5-6, octosporis, leviter, prope medium vero profundius constrictis, hyalinis vel flavidis, 85-110 \approx 2-2,5.

Hab. in ramis decorticatis Aceris campestris, Luxemburg.

Oph. salicino proxime affinis.

9. **Ophiobolus Rhamni** Feltg. Vorst. Pilz. Luxemb. Nachtr. II, 1901, p. 143 et I p. 237, f). — 2680
Peritheciis immersis, ostiolo breve conoideo epidermidem perforante; ascis tereti-clavatis, longiuscule stipitatis 160-175 \approx 11-12, paraphysibus noduloso-septatis obvallatis; sporidiis flexuosis pluriseptatis 105-125 \approx 3-3,5, ex hyalino flavidis, articulis nonnullis prominulis.

Hab. in ramis corticatis Rhamni catharticæ, Luxemburg.

10. **Ophiobolus Vitalbæ** Sacc. — Syll. II, pag. 345. — f. **Berberidis** 2681
Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, pag. 143 et I, p. 236, c). — Peritheciis subcutaneis, ostiolo papillato-erumpente;

sporidiis multiseptatis, valde curvatis, utrinque obtusis, hyalinis, cellula media crassiore; ascis non descriptis.

Hab. in ramulis siccis Berberidis vulgaris, Luxemburg. — f. **Sambuci** Feltg. l. c. et Nachtr. I, p. 236, d). — Peritheciis basi ligno insculptis, globoso-conoideis, hyphis septatis brunneis cinctis, ostiolo conoideo brevi, erumpente; ascis longiuscule stipitatis 125-175 \times 6-9; sporidiis parallelis, 100-160 \times 2,5-3, curvatis, pluriseptatis, plerumque bi-nodulos hyalinis vel brunneolis. — In ramulis siccis corticatis v. decorticatis Sambuci racemosæ, Luxemburg.

11. **Ophiobolus Antenoreus** Berlese — Syll. IX, p. 929. — f. **Sambuci** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 175. — A typo vix recedit peritheciis depressis 200-300 μ . diam.; sporidiis brunneolis 140-150 \times 1-1,3, pluriseptatis.

Hab. in ramis decorticatis Sambuci nigræ, Luxemburg.

12. **Ophiobolus pellitus** (Fuck.) Sacc. — Syll. II, p. 352. — f. **Bidentis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 167. — A typo differt peritheciis minoribus 250 μ . diam. extus hyphis setulisque vestitis; ascis paullo brevioribus 120 \times 7,5-8; sporidiis crassioribus 2-2,5 μ . cr. et paraphysibus non simplicibus.

Hab. in caulibus siccis Bidentis tripartiti, Luxemburg.

13. **Ophiobolus persolinus** (Cald. et De Not.) Sacc. — Syll. II, p. 346. — var. **brachystomus** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 171. — A typo differt ostiolo verruculoso vel breviter conoideo nec cylindraceo (ut in Berlese icon.); sporidiis obsolete septatis, flavidis, 90-135 \times 2-2,5.

Hab. in caulibus Centaureæ Jaceæ, Luxemburg.

14. **Ophiobolus calathicola** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, pag. 172. — Peritheciis sparsis vel subaggregatis, innato-erumpentibus dein subliberis, globoso-conicis 150-200 μ . diam., ostiolo cylindrico-conico, perithecium subæquante; ascis cylindra-ceis breve stipitatis, filiformi-paraphysatis, octosporis, 120-130 \times 4,5-6,5; sporidiis deorsum tenuatis, flexuosis, circiter 14-septatis, flavidis 115 \times 2,5-3.

Hab. in bracteis florum Centaureæ Jaceæ, Luxemburg. — *Ophiobolo affini* valde proximus.

15. **Ophiobolus fruticum** (Rob. et Desm.) Sacc. — Syll. II, p. 347. — f. **Dulcamaræ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, pag. 173. — A typo differt peritheciis depresso-applanatis; ascis versiformibus, sæpius longe stipitatis, usque 200 \times 10-11; spori-

diis inæqualiter articulatis, hyalinis 117-150 \approx 2,7-3,5, usque 20-septatis.

Hab. in caulibus siccis Solani Dulcamaræ, Luxemburg.

16. **Ophiobolus collapsus** Ell. et Sacc. -- Syll. II, pag. 339. — var. 2637

trinodulosus Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 170.

-- A typo differt sporidiis usque 12-septatis 125-140 \approx 2,5, medio et prope apices nodulosis, hyalinis.

Hab. in caulibus siccis Teucrii Scorodoniæ, Luxemburg.

17. **Ophiobolus Georginæ** (Fuck.) Sacc. — Syll. II, p. 341. — var. 2638

Symphyti Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 172.

— Peritheciis immersis brunneolis, non erumpentibus, pilosulis 500 μ . diam., ostiolo acute conico longiusculo; ascis 217-225 \approx 4, parte sporif. 120-160; sporidiis 150-163 \approx 0,7-1, continuis, eguttulatis, flavidis.

Hab. in caulibus siccis Symphyti, Luxemburg.

18. **Ophiobolus Castillejæ** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2639

Fungi p. 34. — Maculis nullis; peritheciis sparsis, erumpentibus, nigris, 200-250 μ . diam.; ascis clavatis, breve stipitatis 90-120 \approx 12; paraphysibus flexuosis, filiformibus; sporidiis luteo-brunneis, guttulatibus 50-55 \approx 5, in asco fere recte dispositis.

Hab. in ramulis emortuis Castillejæ confusæ, Greene, Mt. Hesperus, Colorado, Amer. bor.

19. **Ophiobolus Heveæ** P. Henn. Fungi Amaz. II, p. 243, Notizbl. 2690

Berl. bot. Mus. IV, n. 34, 1904, fig. 4 a-d. — Maculis rotundatis vel effuso confluentibus, griseis; peritheciis epiphyllis gregarie sparsis, innatis tectis, ovoideis, ca. 250 μ . diam. submembranaceo-atris; ostioliis subconico-obtusis; subnitentibus erumpentibus; ascis subfusoides vel clavatis, apice subincrassatis, obtusiusculis, ca. 60-70 \approx 7-10, 8-sporis; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis parallelis, filiformibus, utrinque obtusiusculis, hyalinis, pluriguttulatis, dein subseptatis, 50-60 \approx 2-3.

Hab. in foliis Heveæ, Rio Negro, Sao Joaquin Amazoniæ. —

Oph. Ingæ affinis et ad gen. *Linosporam* nutans.

20. **Ophiobolus petiolaris** Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. 2691

II p. 143 et I p. 236, f). — Peritheciis sparsis omnino immersis, subglobosis, basi applanatis, mediocribus, nigris, ostiolo brevissimo obtuse cylindræo; ascis cylindricis 180-190 \approx 9; sporidiis filiformibus, utrinque acutiusculis indistincte septatis et minute guttulatibus non nodosis nec constrictis, 175 \approx 2-3, hyalino-flavidis.

Hab. in rhachide foliorum Juglandis regiæ, Luxemburg.

21. *Ophiobolus Alismatis* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2692

II, p. 139 et I, p. 231 c). — Peritheciis sparsis vel approximatis immersis, globoso-ellipsoideis, ostioliis longe conoideo-cylindraceutis erumpentibus; ascis cylindricis subsessilibus, $125-150 \times 8-9$, filiformi-paraphysatis; sporidiis filiformibus, $125-130 \times 2-3$, eguttulatis vel pluriguttulatis, prope medium nodulosus ex hyalino flavidis.

Hab. in caulibus siccis *Alismatis Plantaginis*, Luxemburg.

22. *Ophiobolus peduncularis* Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. 2693

II, pag. 139. — Peritheciis gregariis immersis, globosis, $250-300 \mu$ diam., ostiolo conoideo vel fere cylindraceuto; ascis cylindraceutis vulgo breviter stipitatis $112-140 \times 4-5$; sporidiis parallelis, filiformibus, utrinque acutulis, $86-130 \times 1-1,3$, pluriguttulatis, guttulis sæpe per paria approximatis obsoleteque pluriseptatis.

Hab. in pedunculis siccis *Iridis Pseudacori*, Luxemburg.

23. *Ophiobolus bactrosporus* Feltg. Vorstud. Pilz. Luxemb. 1901, 2694

Nachtr. II, p. 139. — Peritheciis gregariis, globosis, basi applanatis hyphisque brunneis cinctis 300μ diam., ostiolo breve conoideo, epidermidem perforante; ascis cylindraceutis breve stipitatis $164-200 \times 5-6,5$; sporidiis parallelis, filiformibus, utrinque acutiusculis, usque 16-septatis, leviter constrictis, pluriguttulatis, hyalinis $156-172 \times 1,7-2$.

Hab. in caulibus *Iridis Pseudacori*, Luxemburg. — *Ophiobolo fragilisporo* affinis.

24. *Ophiobolus Pseudacori* Feltg. Vorst. Pilz. Luxemburg, Nachtr. 2695

II, 1901, p. 139. — Peritheciis gregariis immersis, globoso-applanatis $200-300 \mu$ diam., ostiolo cylindraceuto, longo, acutiusculo, epidermidem perforante; ascis cylindricis, longiuscule stipitatis $84-88 \times 5$; sporidiis parallelis tereti-filiformibus, utrinque rotundatis, 8-11-septatis, septo tertio profundius constrictis, hyalinis $65-78 \times 2$, cellula tertia crassiore.

Hab. in caulibus siccis *Iridis Pseudacori*, Luxemburg.

25. *Ophiobolus Feltgeni* Sacc. et D. Sacc. *Leptosphaeria longispora* 2696

Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 156. — Peritheciis sparsis, innatis, ostiolo late papillato erumpentibus, 500μ diam.; ascis longe clavatis, apice rotundatis, deorsum sensim longe pedicellatis, $97-130 \times 6,5-8$, filiformi-paraphysatis, octosporis; sporidiis parallele fasciculatis, fusoideo-cylindraceutis, utrinque acutulis, multiseptatis, loculis 10-15 nodulosus, $60-95 \times 1,5-2,5$, ex hyalino flavidis.

Hab. in caulibus siccis Iridis Pseudacori, Luxemburg. —

Ad *Ophiobolus longisporum* nutat.

26. *Ophiobolus Typhæ* Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2697 p. 139 et I, p. 231, n. 711 b.) — Peritheciis perexiguis; sporidiis 75-100 \times 3, curvatis, 7-9-septatis, multiguttulatis.

Hab. in foliis Typhæ latifoliae, Luxemburg.

27. *Ophiobolus juncicola* Rehm in Æst. Bot. Zeitschr. 1904, p. 87. 2698

— Peritheciis sparsis, immersis, modo papillula conoidea prominentibus, globosis, glabris, parenchymatice contextis, fuscidulis 150-200 μ . diam.; ascis cylindræis, apice rotundatis, 180-200 \times 5, octosporis; sporidiis filiformibus, rectis, guttulis plurimis oleosis repletis, hyalinis, 120-150 \times 1, parallele positis; paraphysibus filiformibus.

Hab. ad culmos putridos Junci, Olching Bavariae sup.

28. *Ophiobolus paludosus* (Feltg.) Sacc. et D. Sacc. *Leptosphaeria* 2699

paludosa Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. II, p. 157 et III, pag. 209. — Peritheciis sparsis v. hinc inde approximatis, globosis, obtuse conico-papillatis, 500-600 μ . cr., subcarbonaceis, nigris, hyphulis brunneis, ramosis cinctis; ascis clavatis, breve stipitatis, apice rotundatis, 90-110 \times 8-10, octosporis, filiformi-paraphysatis; sporidiis 2-4-stichis, cylindræo-fusoideis, utrinque rotundatis, 60-75 \times 3-4, tenuiter 7-10-12-septatis, rectis curvulisve, guttulatis, flavidis.

Hab. in foliis Caricis vesicariae et Phalaridis arundinaceæ. — Ad *Ophiobolus graminis* nutat.

29. *Ophiobolus graminis* Sacc. — Syll. II, pag. 349. — Pleniorẽ illustrationem hujus fungi perniciosi, cum iconibus, dederunt cl. Prillieux in Malad. des pl. II, p. 221 et Mac Alpine The Journal of Agriculture of Victoria 1903-1904, p. 410.

30. *Ophiobolus Festucae* Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2700

Fungi pag. 34. — Maculis nigris 1 mm. plerumque in pag. sup. foliorum insidentibus; peritheciis immersis, dein erumpentibus 200-250 μ . diam.; ascis late clavatis, breve stipitatis, 110-130 \times 20-25; paraphysibus in modum spiræ sursum convolutis; sporidiis anguste fusiformibus, 40-50 \times 3-4, guttulatis

Hab. in foliis emortuis Festucae spec., Chicken Creek, Colorado, Amer. bor.

OPHIOCHAETA Sacc. — Syll. II p. 352, ut subgenus, IX p. 934, XI p. 352, XIV p. 616.

1. *Ophiochæta Inulæ* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, 2701 p. 178. — Peritheciis gregariis superficialibus, hemisphaericis, 400-600 μ . diam., membranaceis, brunneis; hyphis brunneis, septatis, parce ramosis, 100-250 \approx 3-4, vestitis, ostiolo breve cylindraceo, glabro; ascis cylindraceis, apice rotundatis, longe stipitatis, 220-230 \approx 8, octosporis; sporidiis parallelis filiformibus, vulgo deorsum tenuatis, supra medium nodulosis, multiseptatis, hyalinis, intra ascum brunneolis, 120-136 \approx 2-2,5.

Hab. in caulibus siccis *Inulæ Helenii*, Luxemburg.

2. *Ophiochæta cereicola* Speg. Myc. argent. Ser. II, 1902, p. 73. — 2702 Peritheciis gregariis, primo tectis, dein subsuperficialibus minutis, 250-350 \approx 150-200, atris, crassiuscule umbonato-ostiolutis, deorsum hyphis paucis repentibus adpersis, sursum parce breviterque subpenicillato-pilosis; hyphis basalibus parce ramosis, septatis, 4-5 μ . cr., olivaceis; setulis ostiolorum continuis, fuligineis, apice pallidioribus, 50-60 \approx 6-8; ascis aparaphysatis, 250-300 \approx 14-15, apice obtuse rotundatis, basi breviter cuneato-pedicellatis; sporidiis ascorum longitudine 2,5 μ . crassis, utrinque obtusiusculis, filiformibus, primo multiguttulatis dein obsolete multiseptatis, non fragilibus.

Hab. ad spinas emortuas *Cerei lamprochlori* var. *salinicolæ*, La Plata in Argentina.

3. *Ophiochæta ramealis* (Feltg.) Sacc. et Syd. Vorstud. Pilz. Luxemb. 2703 1901, Nachtr. II, p. 219, *Acanthostigma ramealis* Feltg. — Peritheciis sparsis, superficialibus, globosis, extus nigris septatis 86-92 \approx 4,5-6 vestitis et basi hyphis ramosis septatis 2,5-4 μ . cr. cinctis, membranaceis, globosis, brunneis v. atro-brunneis 100-300 μ . diam., minute papillatis; ascis cylindraceis, rectis curvulisve stipitiformi-attenuatis 105-145 \approx 4,5-5,5 filiformi-paraphysatis; sporidiis filiformibus, contortis, pluriseptato-guttulatis, 100-100 \approx 1, 5-2, utrinque v. uno apice acutulis, hyalinis.

Hab. in ramis corticatis *Alni glutinosæ*, Luxemburg. — *Ophiochætæ chætophoræ* affinis.

LINOSPORA Fuck. — Syll. II p. 354, IX p. 935, XI p. 352, XIV p. 618.

1. *Linospora Sibbaldiæ* E. Rostr. Norske Ascom. 1904, p. 27 (Vi- 2704 dansk. Skrift.) — Peritheciis amphigenis in pseudostromate clypeiformi solitarie nidulantibus, breve papillatis; ascis claviformibus, 65-75 \approx 7-9; sporidiis filiformibus, 50-60 μ . long.; paraphysibus filiformibus, longissimis, apice curvatis, numerosis.

Hab. in foliis exsiccatis Sibbaldiæ procumbentis, Boiumbraeen Norvegiæ (E. POULSSON).

2. *Linospora arctica* Karst. — Syll. II, pag. 354. — var. *helvetica* 2705
Rehm in Œst. Bot. Zeitschr. 1904, pag. 85. — Stromatibus epiphyllis, sparsis, innatis, suborbicularibus, convexulis, nigrescentibus, 1 mm. diam. rostro minimo in medio stromatis prominente; ascis cylindræis, apice rotundatis atque incrassatis, 150-160 × 10-12, bisporis; sporidiis acicularibus, utrinque subacutatis, haud curvatis, 1-cellularibus, guttulis minutissimis repletis, an demum septatis? hyalinis 100-110 × 5, parallele positis; paraphysibus nullis.

Hab. in foliis Salicis reticulatæ (?) ad moles glaciales Silvrette in Helvetia (F. ARNOLD).

3. *Linospora graminea* Rehm in Œst. Bot. Zeitschr. 1904, p. 86. — 2706
Peritheciis in macula orbiculari vel oblonga, nigrescente 1-1,5 mm. diam., 1-2 innata eamque hemisphærice elevantibus, globulosis, vix papillulatis, poro minutissimo pertusis, glabris, tenuiter membranaceis, ex hyphis 3 µ. cr. parallelis, fuscidulis, contextis, ca. 180 µ. diam., 300 µ. altis; ascis cylindræis, apice rotundatis ca. 300 × 5-6, octosporis; sporidiis æqualiter filiformibus, continuis, haud guttulatis, hyalinis asco æquilongis, 1 µ. cr., parallele positis; paraphysibus filiformibus 1-2 µ. cr.

Hab. ad culmos exsiccatos et dealbatos gramineos, juxta moles glaciales Sulden montis Ortler Tirolæ.

OPHIOGNOMONIA Sacc. — Syll. I p. 419 (ut subgenus), XIV p. 613.

1. *Ophiognomonium lapponicum* Vesterg. Micr. rarior. selecti, in Bot. Not. 1902, p. 125. — Peritheciis globosis, hypophyllis, innatis, epidermide tectis, confertis, 360-440 × 238-480; contextu parenchymatico brunneo, cellulis rotundatis 12 µ. diam.; ostiolis erumpentibus, cylindræis v. fere conicis, rectis v. curvulis, poro pertusis, 200-256 × 72-112, nigro-brunneis; ascis elliptico-cylindræis, rectis v. paullo curvulis, breve stipitatis, 88-100 × 6-8, octosporis; sporidiis raro rectis, ad S curvatis, truncatulis, pluri-guttulatis (usque ad 30) hyalinis 69-81 × 2.

Hab. in foliis siccis Betulæ odoratæ pr. Randijaur Lapponiæ.

CRYPTOSPORA Tul. — Syll. II p. 361, IX p. 939, XI p. 353.

1. *Cryptospora quercina* Feltg., Vorstud. Pilz. Luxemb. Nachtr. III, 2708
1903, p. 118. — Stromatibus e basi applanata 1-1,5 mm. lata,

ligno adnata, conoideis, disco 0,5 mm. lato, epidermidis laciniis cincto; peritheciis valsiformiter aggregatis 5-9 in quoque stromate, globoso-ovoideis, 200-300 μ . lat. carbonaceis, nigris, ostiolis minutis; ascis plerumque cylindraceis, 125-135 \times 12-18, rarius oblongis usque 28 μ . diam.; paraphysibus non visis; sporidiis 2-3-stichis cylindricis, utrinque obtusis, rarius parum tenuatis, rectis curvulisve vulgo continuis, rarius medio 1-septatis, non constrictis, 38-42 \times 5,5-7,5, hyalinis, intus granulosis.

Hab. in ramis corticatis putridis *Quercus*, Luxemburg.

Fam. 3. Hypocreaceæ DE NOT.

Cl. v. Höhnelt in *Österr. bot. Zeitschr.* 190, pag. 54 contendit plura genera hucusque inter *Valsaceas* v. *Sphaeriaceas* locata, ut *Endothia*, *Sillia*, *Cryptosporrellæ* spp., *Myrmæcium* Sacc. ¹⁾, *Aplacodina* Ruhl. (= *Apiospora* ²⁾) etc. ad *Hypocreaceas* referenda esse. Non negarem eorum perithecii contextum molliusculum et subolivaceum interdum se præbere et stroma nonnumquam læte coloratum, sed ubi v. Höhnelt observavisset contextum subsimilem in pluribus *Valsæ*, *Diaporthes*, *Laestadiæ*, *Sphaerellæ* etc. speciebus adesse, certe persuasum se habuisset de necessitate ordinem totum non subvertendi. Quoad stroma e. g. *Endothia*, *Sillia* etc., quamquam læte coloratum, minime tamen est carnosum. «Natura non facit saltus» et certe *Sphaeriaceæ* et *Valsaceæ* gradibus intermediis ad *Hypocreaceas* sensim abeunt; sed non est hæc ratio ut raptim et inconsiderate mutemus quæ magistri non sine studio statuerunt.

¹⁾ Cl. Lindau (*Pflanzenf. Pilze* I, p. 470 et 475) omnino inconsulto tribuit *Myrmæcio* meo nomen *Myrmæciella*, *Valsaria* Ces. et De Not. nomen *Myrmæcium* et *Hercospora* Tul. nomen *Valsaria*. Revera Ces. et De Not. condiderunt gen. *Valsariam* anno 1862 pro *Valsaria insitiva* et aliis phæodidymis, quibus improprie anno 1868 addidit De Notaris *Valsam Tiliæ*, cui nomen *Hercospora* Tul. recte competit. Abrogato nomine *Myrmæcium* pro *Valsaria* typica, primum manere debet pro typo hyalodidymo a me condito. Quomodo cl. v. Höhnelt huic postremo (acervulis extus nigerrimis perithecii contextu fuligineo præditi!) adscribere possit suam *Myrmæciellam Caraganae* (cf. *Cryphonectria*) omnino hypocreaceam, non liquet.

²⁾ Cl. Jacezewski jam auno 1896 (*Bull. Herv. Boiss.* pag. 663) *Apiosporam* (*Aplacodinam*) *chondrosporam* novo suo generi *Pseudomassariae* accensuit, sed sporidia talia descripsit (mucosa, appendiculata!), ut dubitari liceat an de vera *Sphaeria chondrospora* Ces. agat. Cfr. supra pag. 658.

Sect. 1. Allantosporæ.

ALLANTONECTRIA Earle — Syll. XVI p. 1140.

1. **Allantonectria Yuccæ** Earle Plantæ Bakerianæ, fasc. II, Fungi p. 12. 2709

— Peritheciis 12-20 in stromate congestis; crusta stromatica erumpente sparsa v. subconfluente, circ. 1 mm. lata; peritheciis rubris, lucentibus, levibus vel leniter rugosulis, collabentibus, 100-125 μ . diam; ascis octosporis, clavatis, minutis, aparaphysatis?, 20-30 \times 3-4; sporidiis distichis v. irregulariter dispositis, 4-5 \times 0,8-1, hyalinis, allantoideis.

Hab. in foliis emortuis *Yuccæ* spec., Hermosa, South Colorado Amer. bor.

Sect. 2. Hyalosporæ.

NECTRIELLA Sacc. — Syll. II p. 448, IX p. 941, XI p. 354, XIV p. 621, XVI p. 559.

1. **Nectriella Cacti** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — 2710

Peritheciis gregariis pallide sanguineo-rubris molliusculis, ovatis 200 \times 110 μ .; ascis sublanceolatis 45-55 \times 4; paraphysibus non bene distinctis; sporidiis distichis, oblongis. continuis, 5-6 \times 1,5.

Hab. in *Opuntia Ficu-indica*, Alabama, Amer. — *A. Nectria sanguinea* et *N. Opuntiae*, cui forsan affinis, differt notis datis.

SPHÆROSTILBELLA P. Henn. in Engl. bot. Jahrb. 1901, p. 40 (Etym. *Sphærostilbe*, cujus est analogum). — Stromata conidiophora elongata, capitata, conidiis subglobosis. Perithecia ascophora illis connexa, globosa v. hemisphærica late colorata, nectriacea. Asci octospori. Sporidia ellipsoideo-oblonga, continua, hyalina. — Est genus parallelum *Sphærostilbes*, sed amerosporum. In Tab. comp. (vol. XIV, p. 22) occupabit n. 42 bis inter *Hypocreaceas*.

1. **Sphærostilbella lutea** P. Henn. in Engl. Bot. Jahrb. 1901, p. 40. — 2711

Peritheciis gregariis interdum confluentibus, in villo byssino albedo nidulantibus, flavo-ochraceis, farinaceis, hemisphæricis, dein collabentibus, obscurius papillatis, ca. 200 μ . diam.; contextu cellulis pseudoparenchymaticis, rotundato-angulatis, flavo-brunneolis; ascis sublinearibus, vertice obtusis, basi paullo attenuatis, octosporis,

60-80 \approx 3,5; sporidiis monostichis, ellipsoideis, obtusiusculis, continuis, 4-5,5 \approx 3-3,5 hyalinis; stromate conidiophoro filiformi, rigido, flexuoso, flavo 1,5-3 mm. longo, pedicello 30-50 μ . cr.; capitulis subflexuosis ca. 150 μ . diam.; conidiis subglobosis, levibus 3-3,5. hyalino-flavidulis.

Hab. ad truncos putres, Kamerun Africae occid.

CHILONECTRIA Sacc. — Syll. II p. 453, IX p. 945, XIV p. 624.

1. *Chilonectria michailowskojensis* P. Henn. in Hedw. 1904, p. 69. 2712

— Peritheciis caespitose erumpentibus, subglobosis, collabascentibus, subpezizoides, levibus, coccineis 250-300 μ .; contextus cellulis rotundato-polyhedricis, coccineis; ascis clavatis, obtuse rotundatis. aparaphysatis, polysporis, 60-100 \approx 10-13; sporidiis oblongis ellipsoideis, obtusis, hyalinis, continuis, 3-4 \approx 1,5-2; conidiis subepidermide fissa erumpentibus, oblongis, utrinque obtuse rotundatis, 2-guttulatis, hyalinis 8-12 \approx 4-4,5.

Hab. in ramis dejectis Fraxini excelsioris, Michailowskoje in ditione Mosquensi Rossiae.

2. *Chilonectria romana* Sacc. in Atti Congr. bot. Palermo 1902, p. 54. 2713

— Peritheciis in soros laxè gregarios, mox erumpentes approximatis, in quoque soro compluribus (12-20), peridermio laciniato et relaxato cinctis, globosis, saturate rubris, glabris, 300-400 μ . d., ostiolo impresso latiusculo, demum sæpe umbilicato; contextu celluloso dilute rubro-rufescente; ascis clavatis, apice rotundatis, sensim tenuato-stipitatis, 80 \approx 12-14, aparaphysatis, 6-8-sporis et polysporis; sporidiis biformibus, octonis cylindricis, utrinque rotundatis, 50-60 \approx 4-5, nunc creberrime, nunc laxius multiseptatis, intermixtis sporidiis innumeris allantoideis, 4-5 \approx 1, hyalinis.

Hab. ad ramulos emortuos Quercus Ilicis, Villa Doria Romæ. — Affinis videtur *Chilon. scolecospore* Bref. et Tav. (Pflanzenf. Pilze I, p. 360 cum ic.) sed sporidia majora, in quoque asco suboctona nec tantum bina.

ELEUTHEROMYCES Fuck. — Syll. II p. 455, IX p. 942.

1. *Eleutheromyces subulatus* (Tode) Fuck. — Syll. II, p. 455. Observante cl. v. Höhnelt in Fragmente mykol. 1903, p. 36, species hæc secundum exempl. Fuckeliana esset forma pyrenidica, quasi *Sphaeronæmella* sporulis biciliatis, sed cum et ego ipse statum etiam ascophorum reperissem (cfr. *Michelia* I p. 50), res videtur ulterius inquirenda.

PECKIELLA Sacc. — Syll. II p. 472, IX p. 944, XVI p. 560.

1. **Peckiella minima** Sacc. et Bres. Not. myc. in *Annales Myc.* 1903, 2714 n. 1, p. 25. — Peritheciis gregariis, *Corticii* hymenio superficialiter immersis et vertice erumpentibus, subiculo proprio subnullo cinctis, globulosis, exiguis 80–100 μ . diam., sordide roseis, ostiolo minuto vix papillato pertusis; peritheciis contextu tenui, dilute olivaceo, periphysibus subhyalinis; ascis cylindraceis, apice rotundatis, subsessilibus, 28–32 \times 3–3,5, aparaphysatis, octosporis; sporidiis monostichis, subsphaericis v. cuboideo-sphaericis, 4 \times 3, hyalinis, minutissime 1–2-guttulatis.

Hab. in hymenio *Corticii* straminei Bres. ad ramos *Alni* Val di Sole (Trento). — Minutiae omnium partium, ascis angustissimis, sporidiis octonis globosis etc. mox dignoscenda species.

POLYSTIGMA Pers. — Syll. II p. 458, IX p. 945, XI p. 354, XIV p. 625.

1. **Polystigma pusillum** Syd. Ann. Mycol. 1904, p. 167. — Stromatibus amphigenis, maculis flavescentibus indeterminatis v. obsoletis insidentibus, innatis, laxe vel circulariter gregariis, minutis, rotundatis v. irregularibus, usque 1 mm. longis, carneo-ochraceis, tandem succineo-brunneolis; peritheciis omnino immersis, paucis (1–5, plerumque 1–3) in quoque stromate, ostiolo non vel parum emergente; ascis cylindraceo-clavatis, apice rotundatis, brevissime stipitatis, 45–66 \times 10–15, octosporis; sporidiis mono-distichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 10–12 \times 3 $\frac{1}{2}$ –5.

Hab. in foliis vivis *Andiræ excelsæ*, Guatemala, Dep. Escuintée (J. DONNEL-SMITH).

MÖLLERIELLA Bres. — Syll. XIV p. 626.

1. **Mølleriella nutans** Rick, Ann. Mycol. 1904, p. 405, cum icon. — 2716 Stromate pulvinato hemisphaerico, usque 2 cm. diam., matrici arcte adnato, carnosio-duriusculo, intus albo, extus ruguloso, ostioliis obscurioribus verruculoso; peritheciis periphericis, stipatis oblongis 1 mm. alt.; ascis 300 \times 10 et medio usque 20 μ . lat. polysporis; sporidiis primo filiformibus, dein in triplicem formam abeuntibus aut filiformibus, articulis jugiter cohererentibus aut articulis demum separatis, 10–12 \times 4, obtuse rectangularibus, 1-guttulatis, seriatis aut jam primitus in articulos sporeomorphos ovoideos, obtusos v. apiculatos 14 \times 5, pluriguttulatos separatis; paraphysibus filiformibus.

Hab. in culmis adhuc vivis *Arundinariæ*, Sao Leopoldo
Brasiliz.

Sect. 3. Phæosporæ.

SPHÆRODERMA Fuck. II p. 459, IX p. 949, XI p. 355, XIV
p. 627, XV p. 562.

1. **Sphæroderma aureum** (Mc. Alp.) Sacc. et D. Sacc. *Rosellinia aurea* 2717
Mc. Alp. Fung. Stone-fr. tr. diseas., Melb. 1902, p. 102, f. 101, 102,
314. — Peritheciis atro-brunneis, superficialibus, gregariis vel
sparsis, 2-3 congestis, globosis, membranaceis, textura ex hyphis
hyalinis composita, ostiolo subrotundo ornatis, 300-400 μ . diam.;
ascis obovatis, brevi stipitatis, octosporis, 45×28 ; paraphysibus
hyalinis, filiformibus, asco subæquilongis; sporidiis distichis, initio
hyalinis, dein olivaceis, tandem fuligineo-brunneis, navicularibus,
apiculo brevi, obtuso, hyalino utrinque ornatis, $24-26 \times 13-14$.

Hab. in foliis Pruni domesticæ et Piri Mali, Victoria
Australiz. — Culta etiam in capsula vitrea.

2. **Sphæroderma Helleri** (Earle) Sacc. et D. Sacc. *Melanospora Hel-* 2718
leri Earle in Muhlenbergia 1901, p. 13. — Peritheciis superficia-
libus dense aggregatis 3-4 usque 20, hypostromate obsoleto, cor-
tice insculpto insertis, 500-600 μ . diam., profunde collapsis, griseis,
extus verruculis applanatis, demum deciduis conspersis peritheci
contextu parenchymatico parvi-celluloso, molli, brunneo; ostiolo
papillato, pertuso, pilis tenuissimis hyalinis vestito; ascis oblongis,
 100×30 , mox evanescentibus; paraphysibus indistinctis; sporidiis
octonis subinde quaternis, distichis, ovoideis, continuis, hyalinis,
denique opace nigricantibus, strato mucoso hyalino plus minus
distincto obvolutis, $25-28 \times 18-20$, demum expulsis et matricem
foedantibus.

Hab. in cortice emortuo arborum in silvaticis Santurce, Porto-
rico. — Ad subgenus *Vittadinula* spectare videtur.

MELANOSPORA Corda — Syll. II p. 461, IX p. 950, XI p. 356,
XIV p. 626, XVI p. 563.

1. **Melanospora Rubi** Rehm in Gest. Bot. Zeitschr. 1904, p. 86. — 2719
Peritheciis solitariis vel 5 arcte congregatis, sessilibus, lagenifor-
mibus 150 μ . alt., 90 μ . latis, in rostrum cylindricum apice obtusum
et fimbriatum, 300 μ . long., 90 μ . lat., prosenchymatice ex hyphis

contortis 4 μ . lat., contextum, fuscidulum elongatis, pilis acutis simplicibus, rectis, hyalinis, $240 \approx 12$, vestitis, et indumento albido ex hyphis hyalinis 4 μ . lat. septatis formato obductis, præsertim ad basim subpellucidis, flavidulis, mollibus, parenchymatice contextis; ascis subglobosis, mox evanidis 4-8-sporis, ca. 15 μ . d.; sporidiis primitus hyalinis, dein fuscidulis, glabris, discoideo-orbicularibus, mox conidiis 1-2 μ . d., minimis, hyalinis obsessis, ca. 6 μ . diam.; paraphysibus nullis.

Hab. in foliis putridis Rubi fruticosi prope Neufriedenheim, Monachii, Bavarie sup.

2. *Melanospora discospora* Mass. et Salm. Coproph. fungi I, p. 352, 2720 fig. 36-38. — Peritheciis sparsis, raro subgregariis 110-130 μ . diam., $180 \approx 200$ μ . altis subimmersis, glabris, subglobosis, flavicantibus, membranaceis, contextu parenchymatico molli tenui e cellulis irregularibus circiter 10 μ . latis composito, rostro breve cylindræo recto obtuso 60-80 μ . longo, apicem versus subhyalino; ascis oblongis circ. $35 \approx 14$ octosporis, citissime diffluentibus; sporidiis discoideis a fronte orbicularibus 7-9 μ . diam., a latere ellipticis 4 μ . latis, atro-brunneis, ad rostri apicem singulatim eructatis et tandem massam subglobosam nigram formantibus.

Hab. in fimo Capræ sinaiticæ et Ovis Burrhel, Kew Britannicæ.

Sect. 4. Hyalodidymæ.

CHARONECTRIA Sacc. — Syll. II p. 466, IX p. 953, XVI p. 1140.

1. *Charonectria pedicularis* Tracy et Earle in Plantæ Bakerianæ 2721 fasc. I, Fungi p. 27. — Peritheciis sparsis vel subgregariis, prominentibus, epidermide velatis, dein subdepressis, rubro-roseis, levibus, mollibus 400 μ . diam., ostiolo erumpentibus; ascis numerosis, cylindræis, breve pedicellatis, aparaphysatis (?) circ. $100 \approx 8$; sporidiis oblique monostichis, hyalinis, minute guttulatis, 1-septatis, constricto-ovalibus, utrinque acutis, $17 \approx 4$.

Hab. in caulibus emortuis Pedicularis crenulatæ, Bear Creek Divide, Colorado Amer. bor.

2. *Charonectria Sambuci* de Höhnelt in Hedw. 1903, pag. (187). — 2722 — Peritheciis globosis, 100-300 μ . latis, immersis, sub epidermide nidulantibus, hanc verruciforme vel semiglobose elevantibus et ostiolo applanato-disciformi ca. 120 μ . lat. et 60 μ . alto perforan-

tibus, hyalinis vel pallide lutescentibus, disco paulo intensius luteolo, intus roseo-pellucidis v. singulis v. 2-5 approximatis, sæpe confluentibus, glabris, papilla solum in margine plerumque pilis hyalinis, rigidis, acutis v. obtusis, continuis, apice hinc inde breviter ramosis, 10-25 \times 2-4 obtecta; ascis paraphysibusque citissime in mucilaginem diffluentibus; sporidiis hyalinis, oblongo-fusiformibus, plerumque bicellularibus, sed non raro continuis, in medio paulum v. haud constrictis, 14 \times 4-5, haud raro tamen etiam minoribus.

Hab. in ramis tenuibus siccis Sambuci nigrae in Jablaniza Herzegovinae. — Peritheciolorum ostiolum planum, parvum; contextus peritheciolorum e cellulis parvis, paulum gelatinosis, filiformibus formatus.

3. **Charonectria Umbelliferarum** de Höhnelt in Hedw. 1903, p. (187). 2723

— Peritheciis sub epidermide immersis, 100-250 μ . diam. globosis, ostiolo 40-70 μ . lat, valde applanato-conico, pallide carneis, tunica tenui, e cellulis minutis formata; ascis clavatis, breviter stipitatis, 65 \times 9; paraphysibus numerosis, filiformibus, 2 μ . crassis, ut ascis mox in mucilaginem deliquescentibus; sporidiis distichis, in asco oblongis v. fusiformibus, hyalinis, bicellularibus v. rectis v. leviter curvatis, in medio non constrictis, 4-guttulatis, 14-18 \times 4-5.

Hab. ad caules siccos Umbelliferarum, Tumpener See in valle Ötztal Tiroliae (DE HÖHNEL).

4. **Charonectria biparasitica** de Höhnelt in Ann. Myc. 1903, I, p. 395. 2724

— In peritheciis vacuis ex vetustis stromatibus *Eutypæ flavovirescentis* parasitica, omnino immersa; peritheciis tenerrimis, candidis, globulosis 250 μ . latis, ostiolo minuto, applanato instructis; ascis tenuibus, cylindraceis, paraphysatis 80-100 \times 8; sporidiis octonis, monostichis, hyalinis, ellipticis, medio septatis, biguttulatis, tenuiter tunicatis, 12-16 \times 5,5-6,5.

Hab. in peritheciis vetustis, vacuis Valsæ flavovirescentis, in silva Kubany Boemiae.

CRYPHONECTRIA Sacc. — Syll. II, p. 507 (1883) ut subgen. (Etym. *cryptos* occultus et *Nectria*) *Hypocreopsisidis* sp. Starb. *Myrmeciella* v. Höhn., nec Lind. — Perithecia *Nectriae*, stromate pulvinato v. discoideo, carnoso, sæpius initio tecto immersa v. semiimmersa. Asci et sporidia *Nectricæ*. Status conidiophorus *Patellinae* species sistens. Genus hinc *Hypocreopsisidi* illinc *Clintoniellæ* affine et cum eis sedulo comparandum.

1. *Cryphonectria gyrosa* (B. et Br.) Sacc. *Nectria gyrosa* B. et Br. — Syll. II, p. 455.
 2. *Cryphonectria moriformis* (Starb.) Sacc. *Hypocreopsis? moriformis* Starb. — Syll. XXI, p. 590.
 3. *Cryphonectria Caraganæ* (v. Höhn.) Sacc. *Myrmæciella Caraganæ* ²⁷²⁵ v. Höhn. *Est. bot. Zeitschr.* 1905, p. 53. — Stromatibus extus miniato-rubris dein brunneis et etiam nigricantibus, erumpentibus, laciniis peridermaticis cinctis, pulvinatis e rotundato irregularibus, 2-9 mm. long. 2-4 mm. lat., crassis, levibus, dein ob perithecia tenuiter verrucosis, denique colliculosis, carnosus, dein siccis suberosus, intus flavidis, e cellulis parenchymaticis 5-20 μ , diam. conflatis, cellulis externis minoribus; peritheciis numerosis, confertis, immersis, subgloboso-ovoideis, 300-315 \times 200-300, vix prominulis, contextu carnoso, late flavo, 40 μ . cr.; ostiolis latiusculo papillatis poro exiguo; nucleo roseo; ascis sessilibus, tenuibus, 65-70 \times 10-12, aparthysatis, 8-sporis; sporidiis mono-distichis, oblongis utrinque obtusulis, rectis v. curvulis, 1-septatis, vix constrictis, levibus, minute guttulatis, 14-20 \times 5-6,5, hyalinis, coacervatis roseis.
Hab. in ramis *Caraganæ* arborescentis in horto bot. Vindobonensi Austriae. — Status conidiophorus formam *Patellinae* sistens, verruciformis: basidiis 13-15 \times 1; conidiis 3-4 \times 1, roseolis.
 4. *Cryphonectria abscondita* Sacc. *Nectria abscondita* Sacc. *Myc. Ven. Spec.* p. 123, tab. XII, f. 42-45. — Syll. II, p. 507.
 5. *Cryphonectria variicolor* (Fuck.) Sacc. — Syll. II, p. 507. — Cl. Winter forte non immerito ad *Hyphomycetiam* retulit.
 6. *Cryphonectria xanthostroma* Penz. et Sacc. — Syll. XIV, p. 639.
- NECTRIA** Fr. — Syll. II p. 479, IX p. 955, XI p. 357, XIV p. 628, XVI p. 565.

I. *Eu-Nectria* Sacc.

1. *Nectria coccidophthora* A Zimm. *Centralbl. f. Bakter. u. Parass.* ²⁷²⁶ II, Abth. VII, 1901, p. 872, fig. 1. — Peritheciis ad basim sporodochiorum conidiophororum gregatim nascentibus vel seorsim subsparsis, globoso-conoideis, sanguineis, ostiolo papillato dilutiore præditis, 230-280 μ . diam.; ascis octosporis, 100 μ . longis; sporidiis ellipsoideis, utrinque rotundatis, 1-septatis, non constrictis, intus granulosi, hyalinis, 17-20 \times 7-8; sporodochiis conidiophoris

cinnabarinis, conoideis, totis 0,7-0,8 mm. alt.; conidiis pilis (paraphysibus?) cinctis tereti-fusoideis, prælongis, 7-9-cellularibus, leviter curvis, 110-120 \approx 6, intus granulosi, hyalini.

Hab. in *Mytilaspidis* sp. ad *Coffeam arabicam* et in *Parlatoria Zizyphi* ad *Citrum Buitenzorg* Javæ. — Affinis *N. aurantiicolæ* sed satis diversa.

2. *Nectria Massei* Sacc. et D. Sacc. *N. verrucosa* Massee in Kew 2727 Bull. 1901, p. 166, nec (Schw.) Sacc. — Peritheciis in pulvinulos hemisphaericos 2-3 mm. diam., confertis, globosis, incarnatis, verrucosis, ostiolo papillato; ascis cylindræis, octosporis, aparaphysatis, 60 \approx 8; sporidiis ellipticis, utrinque rotundatis, medio 1-septatis vix constrictis, loculis 1-guttulatis æqualibus, hyalinis, levibus, 10 \approx 6.

Hab. in ligno emortuo, in horto botanico Aburi, Gold Coast Africae occident. (JOHNSON).

3. *Nectria fruticicola* A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2723 p. 182. — Peritheciis dense aggregatis stromateque suffultis, globosis, vix papillatis, glabris, ochraceo-flavis 180 μ . diam.; ascis 8-sporis; sporidiis oblongis, 2-cellularibus, medio distincte constrictis, hyalinis, 10-12 \approx 3,5.

Hab. in fructibus atratis *Coffeæ libericæ*, Buitenzorg Javæ.

4. *Nectria compressa* Starb. in Arkiv för botan. 1904, Band. 2, p. 13, 2720 fig. 24. — Peritheciis stromate subcorticali læte luteo-miniato insidentibus, in acervulos plerumque orbiculares pulvinatos, 1-3 mm. diam. erumpentibus, superficialibus, dense aggregatis sed discretis, madore ovato-conoideis, siccis e latere compressis v. varie contractis, non vel vix collabentibus, coccineo-rubellis, minute sed manifeste obscurius ostiolatis, glabris, 100-150 μ . diam., usque 250 μ . altis, contextu carnosulo, hypocreaceo; ascis cylindræo-clavatis, breve pedicellatis, apice rotundatis, 55-65 \approx 9-10, paraphysibus diffluentibus; sporidiis octonis distichis vel oblique monostichis, 1-septatis, ellipsoideis, hyalinis, 10-16 \approx 6-7,5.

Hab. in ramis corticatis, San Antonio pr. Asuncion Paraguay.

5. *Nectria Cinchonæ* A. Zimm. Berichte üb. Land u. Forstw. Deutsch. 2731 Afrika, 1904, p. 32, tab. III, fig. 17. — Peritheciis compluribus in stromate communi confertis, rufo-brunneis, 300 μ . altis et 200 μ . lat., basi pilis albido-flavis, pluri-cellularibus, apice inflatulis, rugulosis cinctis; ostiolo parum prominente; ascis octosporis; sporidiis oblongis, utrinque rotundatis 10-13 \approx 4, uniseptatis, non constrictis, hyalinis, membrana tandem flavida longitrorsum striata.

Hab. in ramis *Cinchonæ succirubræ* et *C. Ledgerianæ* in horto Amani Afr. orient. — Adest initio stat. conidioph. cæspitosus; conidiis bicellularibus, hyalinis, 7-10 \times 2-3, basidiis cylindræis stipitatis suffultis.

6. *Nectria camerunensis* Appel et Strunk, Einig. Kamer. Theobr. 2731
Pilze, p. 9, fig. 11 (Centralbl. Bakter. 1903). — Peritheciis hypostromate compacto, carnosio, pulvinato, flavido suffultis, confertis, globoso-ovoideis, 0,2-0,3 mm. diam.; ascis octosporis, clavatis, deorsum tenuato-stipitatis, 60-75 \times 12; sporidiis fusoides, utrinque acutis, rectiusculis, 1-septatis, non constrictis, distichis v. oblique monostichis, 12-15 \times 3-4, obsolete guttulatis.

Hab. in fructibus emortuis *Theobromæ Cacao*, Victoria Kamerun Africae occid. (STRUNK).

7. *Nectria Bonanseana* Sacc. sp. n. — Stromatibus in maculis epi- 2732
phyllis flavido-rufescentibus suborbicularibus 5-7 mm. latis circumatim dispositis, verruciformibus erumpentibus vix $\frac{1}{2}$ mm. diam., centralibus magis prominentibus, atro-rufis; peritheciis perexiguis, globulosis, numerosis, 20-30 in quoque stromate, semiprominentibus, rugulosis, nigricantibus, 100-160 μ . diam., contextu superne crassiore, celluloso, atro-olivaceo; ascis e fundo perithecii radiantibus, fusiformibus, subsessilibus, 90-96 \times 8-9, apice acutiusculis, octosporis; paraphysisibus parum conspicuis; sporidiis distichis fusoides 1-septatis, utrinque acutulis, 16-17 \times 3,2-3,5, hyalinis, eguttatis.

Hab. in foliis morientibus vel emortuis *Agaves* sp. Mexico (Doct. SILVIUS BONANSEA). — A speciebus mihi notis omnino distincta.

8. *Nectria blumenaviensis* P. Henn. Fungi blumenavienses II, in 2733
Hedw. 1902, p. 3. — Peritheciis botryose cæspitosis, luteis, subgloboso-ovoideis, apice papillatis, levibus, glabris, 190-210; ascis cylindræo-clavatis, vertice rotundatis, ad basim attenuatis, octosporis, 35-45 \times 4-5, paraphysisibus obsoletis; sporidiis oblique monostichis, ellipsoideis utrinque obtusis, bi-guttulatis, dein 1-septatis, haud constrictis, hyalinis, levibus, 8-11 \times 3,5-4.

Hab. in ramis corticatis, St. Catharina Brasiliæ austr.

9. *Nectria cinnabarina* (Tode) Fr. — Syll. II, p. 479. — var. *oli-* 2734
gocarpa Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 304. — A typo recedit peritheciis non collabascentibus, levibus nec verruculosis, in quoque cæspitulo paucis, dilute coloratis, 500-600 μ . diam.; ascis 80 \times 8; sporidiis 16-22 \times 5-6.

Hab. in ramis *Spirææ Douglasii*, Luxemburg.

II. *Zimmermannia* Sacc. Ostiolum coronato-dentatum.

10. *Nectria peristomata* A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2735 pag. 478, cum icon. — Peritheciis sparsis amphigenis, stromate carentibus, globosis, brunneis 180 μ . diam., vertice dentibus (10-15) patentibus obscurioribus, usque 80 μ . longis coronatis, ostiolo impresso pertuso; ascis octosporis 36-40 μ . longis; sporidiis bicellularibus oblongis, constricto 1-septatis, curvulis, utrinque obtusulis, vulgo 4-guttulatis, 14 \times 2-3, hyalinis.

Hab. in foliis emortuis *Vanillæ* cultæ, Buitenzorg in insula Java. — Ob coronam dentium circa ostiolum, novum subgenus est condendum et in honorem auctoris *Zimmermannia* vocandum.

III. *Dialonectria* Sacc.

11. *Nectria sanguinea* (Sibth.) Fr. — Syll. II, pag. 493. — var. 2736 *corallina* Bres. in Strass. Pilzfl. Sonntagn. IV, p. 414, in Verhandl. zool. bot. Gesell. Wien. 1901. — Sacc. Syll. XVI, pag. 1140 (nomen). — Peritheciis superficialibus, gregariis v. sparsis, ovoideis, papillatis, non collabentibus, vivide corallinis, 200-300 \times 230-330 μ ., contextu subparenchymatico; ascis cylindraceutis octosporis 80-90 \times 7-8; paraphysibus teneris, ramosis 2,5 μ . latis; sporidiis subfusoides vel subellipticis, uniseptatis, ad septum non vel vix constrictis 11-15 \times 4-5.

Hab. in ligno fagineo, Austria inf. — A typo differt colore et sporidiis majoribus.

12. *Nectria umbilicata* P. Henn. Fungi blumenavienses II, in Hedw. 2737 1902, p. 3. — Peritheciis sparsis vel subaggregatis, ovoideo-subglobosis, purpureis, levibus ca. 400 μ . diam., apice obscurius annulatis, umbilicatis, minute papillatis; ascis cylindraceuto-clavatis, apice rotundatis, octosporis, 70-90 \times 6-7; sporidiis ellipsoideis, utrinque obtusis, bi-guttulatis, intus flavidis, 1-septatis, haud constrictis, 10-13 \times 4-5, levibus.

Hab. in truncis, St. Catharina Brasilie austr.

13. *Nectria cyanostoma* Sacc. et Flag. in Atti Congr. bot. Palermo 2738 1902, p. 53, cum tab. — Peritheciis gregariis v. subsparis, globoso-conoideis, superficialibus, 200-250 μ . diam.; glabris, inferne usque fere ad ostiolum roseis, superne cum ostiolo obtuse papillato atrocyanis; contextu peritheci parenchymatico ad ostiolum prosenchymatico amœne discolore; ascis cylindraceutis, obtusis, deorsum

breve tenuatis, aparaphysatis, octosporis $85-90 \approx 7-8$; sporidiis rectis v. oblique monostichis, ovoideo-oblongis, utrinque rotundatis, constricto-1-septatis, 2-4-guttulatis, $14-16 \approx 5,5-6$, hyalinis.

Hab. in cortice sicco ramorum Buxi sempervirentis, St. Romain prope Rigny Gallie. — Pulchella species, inter *Liseam Buxi* et *Nectriam Desmazierii* media (an hybrida?). Cum ipsa *N. cyanostoma*, etsi rarius, occurrit *Fusarii* species (conid. falcatis $55-60 \approx 5-6$, 5-7-septatis) affinis *F. buricolo* Sacc. et statum ejus conidicum verisimiliter sistens. Cfr. Syll. II, p. 518.

14. *Nectria tricolor* de Höhnelt Fragmente zur Mykol. 1903, p. 5. — 2739

Stromate nullo; peritheciis nunc sparsis, nunc usque 3 vel 5 in acervulos minulos aggregatis, sphaeroideis, vertice depressis, 400 μ . latis, supra aurantio-rubris, medio luteis, infra brunneis; tunica parenchymatica e cellulis majusculis, usque 35 μ . latis, extus vel squamulose vel verruciforme prominentibus formata; ascis cylindraceis, tenuibus, $90 \approx 5$; paraphysibus numerosis, filiformibus, 2 μ . crassis; sporidiis monostichis, levibus, hyalinis, didymis, medio non constrictis, utrinque leviter attenuatis, $10-11 \approx 3-3,5$.

Hab. in ligno nudo putrido Abietis pectinatae, prope Pressbaum Austriae inf.

15. *Nectria striatospora* A. Zimm. in Centr. f. Bakter. Paras. 1901, 2740

II, Abt. pag. 105, fig. 6. — Peritheciis superficialibus, globosis, gregariis, sanguineis, ostiolo papillato, nigricante, 0,4 mm. long., 0,3 mm. cr.; ascis octosporis, 100 μ . long.; sporidiis bicellularibus, oblongo-ellipsoideis, utrinque obtusulis, medio leviter constrictis, $23 \approx 9$, membrana longitudinaliter striolata, (manifestissime in sporidiis vacuis v. germinantibus.)

Hab. in cortice trunci Theobromæ Cacao Buitenzorg, ins. Java.

16. *Nectria gigantospora* Zimm. in Bull. de l'Inst. Bot. de Buitenz. 2741

1901, p. 15. — Maculis brunneis, obscurius marginatis; peritheciis amphigenis, sparsis, initio in margine macularum insidentibus, rotundis, ostiolo donatis, $300 \approx 200$, rubro-cinnabarinis; ascis clavatis octosporis; sporidiis hyalinis 1-septatis, constrictis, utrinque truncatis, curvulis, $50 \approx 9$.

Hab. in foliis Fici elasticæ, Buitenzorg, in insula Java.

17. *Nectria galligena* Bres. in Strasser Pilzfl. Sonntaglb. IV, p. 413, 2742

in Verhandl. zool. bot. Gesell. Wien. 1901. — Peritheciis superficialibus, dense gregariis, adpressis, læte rubris, obovatis, papillatis, haud collabentibus, 200-300 μ . latis, contextu subparenchy-

matico; ascis cylindraceutis 100-110 \times 10; paraphysibus filiformibus, ramosis; sporidiis hyalinis, oblongis, uniseptatis, ad septum subconstrictis, 18-20 \times 7-8.

Hab. in gallis ad folia Salicis purpureæ, Austria inf. — *Nectria sanguineæ* Sibth. affinis, a qua præcipue ascis et sporidiis majoribus distincta.

18. *Nectria dacrymycelloides* Rehm in Hedw. 1903, pag. (175). — 2743

Peritheciis gregariis, initio innatis, dein emergentibus, sessilibus, globoso-conoideis, ostiolo minutissimo præditis, dilute aurantiaco-luteolis, in sicco conoideis, vix collabentibus, obscurioribus, brunneis 210 μ . diam.; excipulo parenchymatico, flavido-brunneolo, glabro, basi hyphis nonnullis hyalinis obsesso; ascis clavatis 60 \times 12, octosporis; sporidiis fusiformibus, rectis v. subcurvatis, medio septatis, vix constrictis, hyalinis, guttis oleosis fere carentibus, 18-20 \times 4,5-5, distichis.

Hab. in caulibus putrescentibus Senecionis Fuchsii, Utterwalder Grund Saxonie (KRIEGER).

19. *Nectria Behnickiana* P. Henn. Hedw. 1905, XLIV, p. 172. — 2744

Peritheciis corticulis, sparsis vel subaggregatis, ovoideis, apice subpapillatis, coccineis, ca. 180-220 μ . diam., hyphis, hyalinis, flexuosis ca. 2 μ . crassis vestitis; ascis clavatis, obtusis, 8-sporis, 60-70 \times 6-10; sporidiis oblique monostichis vel distichis, ellipsoideis vel ovoideis, hyalinis vel flavidulis, medio 1-septatis constrictulis, 10-13 \times 4 $\frac{1}{2}$ -6; stromatibus conidiophoris pulvinatis, farinosis, pallidis; conidiis ellipsoideis, obtusis, continuis, hyalinis, 4-5 \times 2-2 $\frac{1}{2}$.

Hab. in ramis corticatis emortuis Coffeæ arabicæ cum Orchideæ connatis, ex Brasilia, in horto botanico Berolinensi.

20. *Nectria coffeicola* Zimm. in Centr. f. Bakter. Parass. II Abt. 2745

1901, n. 3, p. 103, fig. 4. — Peritheciis late confertis, stromate nullo suffultis, sessilibus, globosis, 0,3 mm. diam., 0,4 mm. alto, initio cinnabarinis, demum brunneolis, ostiolo prominulo, achromo vel denique cyanescente; ascis cylindraceuto-clavatis, octosporis; 70 μ . long.; sporidiis ellipsoideis, 1-septatis, non constrictis, utrinque obtusis, 10-13 \times 5-6.

Hab. in truncis annosis Coffeæ arabicæ nec non Meliæ et Theobromæ in Java et Cinchonæ sp. in Amani Afr. or. — Prope st. ascophorum evolvuntur status conidiophori: alter conidiis tereti-falcatis continuis capitulatis, 11-30 \times 3-4, alter conidiis fusariiformibus, 4-6-cellularibus, 40-50 \times 5 (hic postremus tantum probabilis). A *N. saccharina* certe diversa. — Var. *ochroleuca*

Zimm. l. c. p. 105. — A typo differt colore læte ochroleuco et peritheciis minoribus. In ramis Coffeæ emortuis in Java.

21. *Nectria amaniana* Zimm. Berichte üb. Land. und Forstwirth. 2746
Deutsch. Ostafrika, 1904, p. 31. — Peritheciis stromate carentibus, liberis, globosis, glabris, ochraceo-flavis, 200-260 μ . diam.; ascis octosporis; sporidiis oblongis, obtusis, 1-septatis, non constrictis, 7-8 \approx 3, hyalinis.

Hab. in ramis Cinchonæ succirubræ et C. Ledgerianæ in horto Amani Africæ orient.

22. *Nectria secalina* Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — 2747
Peritheciis gregariis, ovato-globosis 100-120 μ . diam., luteo-aurantiacis, plus minusve leviter collapsis; ostiolo minuto, papilliformi; ascis clavato-cylindraceutis, sessilibus, apapophysatis, 40-55 \approx 7-8; sporidiis subdistichis, oblongis vel oblongo-ellipticis, 1-septatis, parce constrictis, hyalinis, 7-10 \approx 3-4.

Hab. in culmis Secalis cerealis, Alabama Americæ. — A *N. gibberelloide* E. et E. et a *N. Brassicæ* E. et Ev. differt peritheciis aurantiacis sporidiisque minoribus.

23. *Nectria Bolbophylli* P. Henn. Hedw. XLIV, 1905, pag. 171. — 2748
Peritheciis bulbiculis, sparsis, v. subaggregatis, ovoideis, apice obtuse papillatis, coccineis, ca. 200-230 μ . diam.; ascis cylindraceut-clavatis apice rotundato-obtusis, 8-sporis, 70-100 \approx 6-9; sporidiis oblique monostichis, ellipsoideis, utrinque obtuso-rotundatis, medio 1-septatis constrictis, hyalinis vel flavidulis 10-12 \approx 5-6.

Hab. in pseudobulbis emortuis Bolbophylli Lobbi in horto bot. Berolinensi (E. BEHNICK).

24. *Nectria dasyscyphoides* P. Henn. Hedw. XLIV, 1905, p. 172. — 2749
Peritheciis corticolis, sparsis vel subgregariis, 250-300 μ . ovoideis papillatis dein pezizoideo-collabentibus, carneis, basi hyphis villosis repentibus, hyalinis ca. 90 \approx 2 $\frac{1}{2}$ -4 circumdatis; ascis subclavatis vel subfusoides, apice obtusis vel acutiusculis, 8-sporis, 60-80 \approx 7-9; sporidiis oblique monostichis vel subdistichis, ellipsoideis, obtusis, medio 1-septatis, haud constrictis, 2-4-guttulatis, 9-12 \approx 4-5.

Hab. in ligno corticato, cum Orchidea connato, ex Kame-run Africæ importato, in horto bot. Berolinensi (E. BEHNICK).

IV. *Lasionectria* Sacc.

25. *Nectria cæsariata* Pat. Bull. Soc. Mycol. 1902, p. 303, f. XIV, 2750
f. 4. — Peritheciis epiphyllis, 3-5-confluentes gregariis vel sub-

solitariis, nullo stromate fultis, maculis fuscis denique arescentibus insidentibus, sphæroideis, albo-rubellis 680-800 μ . latis, poro punctiformi pertusis, apice atro excepto, pilis flexuosis, fasciculatim conjunctis, simplicibus, tenacibus, crasse tunicatis, transverse septatis, hyalinis vel plus minus rubro-tinctis, apice obtusis 120-250 μ . longis, 6-10 μ . cr., undique obsitis; contextu parenchymatico, rubiginoso v. rubro-atro; ascis cylindraceutis, sursum rotundatis, deorsum attenuatis 130 \times 12; sporidiis octonis, monostichis v. subdistichis, hyalinis, ellipsoideo-oblongatis, medio septatis, non constrictis 18 \times 6.

Hab in foliis vivis Chusqueæ, in Brasilia (GLAZIOU). — *N. leucocomæ* Starb. affinis.

26. *Nectria vanillicola* P. Henn. F. javanici novi in Hedw. 1902, 2751 p. 141. — Peritheciis sparsis v. aggregatis, ovoideis, vertice papillato-acutiusculis, coccineis, membranaceis, ca. 150-180, pilis septatis apice plerumque incrassatis, rotundatis, curvulis, flavo-brunneis 40-80 \times 3-5 vestitis, basi bysso velutina, cremea circumdati; ascis subclavatis v. fusoides, apice rotundatis v. subacutiusculis, octosporis, 35-45 \times 7-10, paraphysibus septatis, hyalinis; sporidiis subfusoides, 1-septatis, haud constrictis, 8-12 \times 3,5-4, hyalinis.

Hab in foliis Vanillæ aromaticæ, Buitenzorg Javæ.

27. *Nectria Vanillæ* A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2752 p. 470, cum. icon. — Peritheciis plerumque compluribus aggregatis, globoso-conoideis 350-400 μ . alt. et 250-300 μ . lat., primo cinnabarinis, dein brunneolis, pilis clavulatis, pallidis, crebris vestitis, ostiolo conoideo denudato; ascis clavatis 50-60 μ . long., octosporis aparaphysatis; sporidiis oblongis, rectis, utrinque obtusulis, 1-septatis, non constrictis, hyalinis 9-2.

Hab in caulibus Vanillæ cultæ, cui valde noxia, Buitenzorg in insula Java. — Simul adsunt acervuli flavo-albidi conidiophori; conidiis 1-septatis, 16-20 \times 3,5-4, basidio paullo longiore suffultis.

28. *Nectria raripila* Penz. et Sacc. in Malpighia 1901, p. 228, Ic. 2753 fung. Javan. t. XXXII, fig. 2. — Peritheciis laxè gregaris, superficialibus, sphæricis, vertice obtuse conoideis, ostiolo perexiguo pertusis, aurantiacis, 200-250 μ . diam., parce pilosis; contextu laxè parenchymatico, tenui, dilute roseo-flavo; pilis filiformibus, subflexosis, obtusis, 80-100 \times 10-14, septatis, ex hyalino roseis; ascis fusoides, apice acutulis, subsessilibus, 70-75 \times 10-12, mox diffuentibus, 4-5-sporis, aparaphysatis; sporidiis distichis fusiformibus, sæpe mæquilateris, utrinque obtusulis, 28-32 \times 6,5-7, levibus, 1-

septatis, non constrictis, hyalinis, plasmate tenuissime longitrorsum striatulo.

Hab. in caulibus emortuis Elettariæ, Tjibodas, in insula Java (N. FLEISCHER). — Vere distincta, ad sect. *Lasionectriam* spectat, sed ob pilos vere parcos ad *Dialonectriam* accedit.

29. *Nectria pilosella* Rehm in *Est. Bot. Zeitschr.* 1904, p. 87. — 2754

Peritheciis sparsis, sessilibus, globulosis, subumbilicatis, haud papillulatis, albo-succineis, poro obscuriore, vix conspicuo pertusis, 210-240 μ . diam., pilis crebris, rectis, simplicibus, ad basim dilatatam 5 μ . cr., 40-60 μ . long., versus apicem plus minusve subacutatis, septatis, hyalinis obsessis, parenchymatice contextis; ascis clavatis 50-60 \times 7-8, octosporis; sporidiis fusiformibus v. subclavatis, rectis, medio septatis, haud constrictis, utraque cellula guttam oleosam 1-2 includente, hyalinis 12-14 \times 3, plerumque oblique monostichis; paraphysibus tenerrimis, septatis, 2-3 μ . cr.

Hab. ad culmos Graminaceæ ejusdam in Valle Kienbach prope Andechs Baviaræ sup.

30. *Nectria Mercurialis* Boud. — Sacc. Syll. IX, pag. 969. — var. 2755

Urticæ Rehm in *Est. Bot. Zeitschr.* 1904, p. 87. — Ascis clavatis 50 \times 7-8; sporidiis obtusis fusiformibus vel oblongis, utrinque rotundatis, medio septatis, haud constrictis, utraque cellula guttas oleosas magnas includente, 12-17 \times 4-5.

Hab. in caulibus siccis Urticæ dioicæ prope Neufriedenheim, pr. Monachium Baviaræ.

31. *Nectria gigantea* Speg. Myc. argent. ser. II, 1902, pag. 77. — 2756

Maculis nullis; peritheciis superficialibus, gregariis, aurantiis, sessilibus 0,5-0,75 mm. diam., carnosulis, hemisphaerico-turbinatis, hispidulis, superne applanatis, glabris, vix papillulato-ostiolatis; spinulis erectis, 40-100 μ . long., 10-15 μ . cr., ex hyphis laxè coalitis 5 μ . cr., septulatis simplicibus obtusiusculis efformatis; ascis fusoido-subclavatis apapophysatis, apice obtusis, deorsum brevissime cuneato-stipitellatis 90-110 \times 15, octosporis; sporidiis polystichis rectis vel leniter curvulis, 45-50 \times 5-7, utrinque obtusiusculis, ad medium 1-septatis non constrictis, loculis æquilongis, 3-4-guttulatis.

Hab. ad caules putrescentes Conii maculati, S. Catilina, in Argentina.

32. *Nectria luteo-pilosa* A. Zimm. in *Centralbl. f. Bakter.* 1902, 2757

VIII, p. 182. — Peritheciis dense gregariis, ovoideis, prominulopapillatis, cinnabarinis; pilis luteis fere usque ad verticem vestitis, 250 \times 180; pilis concretionibus aureis globosis tectis, verruculosi et

fortiter curvis; ascis 8-sporis, apice obtusis; sporidiis oblongis, non constrictis, obtusis, $10,5-12,5 \times 3$; paraphysibus nullis.

Hab. in fructibus atratis Coffeæ libericæ, Buitenzorg Javæ.

IV. *Lepidonectria* Sacc.

33. *Nectria ornata* Mass. et Salm. Coproph. fungi II, p. 75, fig. 29. 2758

32. — Peritheciis sparsis, minutis, subglobosis dein vertice subdepressis, $330-500 \mu$. diam., ostiolo minuto, obscuro, aurantiacis, basim versus squamulis argenteo-nitentibus, patulis undique instructis; ascis cylindraceis vel cylindraceo-clavatis, $65-75 \times 9-11$, octosporis; sporidiis primo monostichis, deinde irregulariter distichis, ellipsoideis, utrinque obtusis, $12-14 \times 4-5$, hyalinis, 1-septatis, ad septum haud constrictis.

Hab. in fimo equino, Kew Britannicæ.

34. *Nectria juruensis* P. Henn. Fungi Amaz. II, p. 244. Perithe- 2759

ciis gregarie cæspitosis, ovoideis apice papillatis mox collabentibus, cupulatis, flavo-succineis, cinereo-furfuraceis, squamis rotundatis, brunneolis, ca. $250-280 \mu$.; ascis clavatis, obtusis, 8-sporis, $60-80 \times 18-22$; sporidiis cylindraceis, utrinque rotundatis, intus granulatis, medio 1-septatis, haud constrictis, $20-40 \times 8-10$.

Hab. in ramis corticatis, Bom Fim Rio Juruá et Marmellos Amazonicæ.

35. *Nectria Iriartiae* P. Henn. Fungi paraenses II, in Hedw. 1902. 2760

p. 16. — Cæspitulis gregarie erumpentibus, pulvinatis, usque ad 2 mm. diam.; peritheciis plus minus numerosis, primo flavidis dein subminiatis, globosis vel ovoideis, ca. $150-200$, pilis cirratis septatis flavidis, $20-60 \times 6-7$, exasperatis, ostiolis papillatis obscurioribus; ascis clavatis, apice obtusis $35-55 \times 5-7$; sporidiis distichis v. oblique monostichis, oblonge ellipsoideis v. subfusoides utrinque obtusis, intus granulatis, medio 1-septatis, haud constrictis, $9-11 \times 3,5-4$ hyalinis.

Hab. in corticibus emortuis truncorum Iriartiae exorrhizæ Para, Amer. austr.

36. *Nectria hypocrellicola* P. Henn. fungi blumenavienses II, in 2761

Hedw. 1902, pag. 4. — Peritheciis cæspitose gregariis, minutis, ovoideis apice rotundatis, papillatis, subfarinaceo-pulverulentis, flavidis, ca. $100-140 \mu$. diam.; ascis cylindraceis, apice rotundatis, basi attenuatis, curvalis $55 \times 68 \times 4,5-5,5$; paraphysibus hyalinis, filiformibus v. obsoletis; sporidiis oblique monostichis, ellipsoideis,

utrinque rotundatis, 1-septatis, constrictis, bi-guttulatis, $8-10 \approx 4,5$ hyalinis, levibus.

Hab. in culmis Bambusæ, parasitica in Hypocreellæ spec., St. Catharina Brasilæ austr.

37. *Nectria bulbicola* P. Henn. Notizbl. d. Bot. Gart. u. Mus. Berlin 2762 1901, p. 98. — Peritheciis cæspitose erumpentibus, subgloboso-ovoideis, luteis v. succineis, apice papillatis, dein collabentibus, extus subtiliter furfuraceo-squamulosis, $180-210 \mu$. diam.; ascis fusoides-clavatis, apice acutiusculis v. subobtusiusculis, basi attenuatis, $35-45 \approx 6-9$, octosporis; paraphysibus haud conspicuis; sporidiis oblongis vel oblique monostichis vel subdistichis, utrinque obtusis, primo continuis, dein medio septatis, haud constrictis, $9-11 \approx 3,5$, hyalinis.

Hab. in bulbis Maxillariæ rufescentis in horto bot. Bero-
linensi Germ. — Sporodochia [*Tubercularia bulbicola* (Henn.) Sacc.] subpulvinata erumpentia, ceracea, albida dein flavescentia, sicco subfarinacea; conidiophoris fasciculatis filiformibus, hyalinis, 3μ . cr.; conidiis ellipsoideis v. ovoideis continuis, $4-7 \approx 3-3,5$, hyalinis.

38. *Nectria botryosa* P. Henn. Fungi Blumenavienses II, in Hedw. 2763 1902, p. 3. — Soris botryose cæspitosis, erumpentibus, pulvinatis, 2-3 mm. diam.; peritheciis subglobosis, conico-papillatis, sicco collapsis, furfuraceo-squamulosis, flavidis ca. $160-200 \mu$. diam.; ascis clavatis, apice obtusis, octosporis $45-60 \approx 6-8$; sporidiis fusoides utrinque acutis $9-12 \approx 3-3,5$, septatis, haud constrictis, hyalinis, levibus, oblique monostichis.

Hab. in truncis putridis Palmarum, St. Catharina Brasilæ austr.

39. *Nectria tuberculata* Trav. in Atti Congr. bot. Palermo 1902, p. 42. 2764 — Peritheciis superficialibus, plerumque solitariis, primitus strato conidiifero (*Dendrodochium Nectrice* Trav) tectis, dein liberis, pyriformi-globulosis, ostiolo minuto pertusis, $200-300 \mu$. d., miniato-rubris, grosse et parce squamoso-tuberculatis, ceraceo-membraneis, contextu late parenchymatico, citrino-ochraceo; ascis cylindraceo-clavatis, superne truncatis, $85-100 \approx 9-12$, octosporis, paraphysatis; sporidiis distichis vel monostichis, ovato-ellipsoideis, $15-18 \approx 5-7$, 1-septatis, non vel vix constrictis, loculo superiore paullo crassiore, diu hyalinis sed tandem ex hyalino fuscidulis.

Hab. ad basim trunci Poincianæ regiæ jam emortuæ et putrescentis, in calidariis horti botanici, Padova Italiæ bor.

VI. *Hyphonectria* Sacc. (Cfr. n. 24).

40. *Nectria subfalcata* P. Henn. Fungi blumenavienses II, in Hedw. 2765 1902, p. 4. — Peritheciis sparsis v. aggregatis, basi byssino-albidis, hyphis ramosis, septatis, hyalinis, 4-7 μ . cr. circumdatis, subglobosis, flavo-brunneis, apice papillatis dein collabentibus, ca. 300-350 μ . diam., contextu pseudo-parenchymatico, flavo v. rufo-brunneolo; ascis late fusoideis, utrinque acutiusculis, octosporis 60-80 \approx 28-30; sporidiis conglobatis, longe fusoideis, utrinque acutiusculis, rectis vel falcatis, 1-septatis, oleoso-pluriguttulatis, 40-50 \approx 5-8, hyalinis, levibus.

Hab. in caulibus putridis, St. Catharina Brasilæ austr.

41. *Nectria rosella* Bres. Fungi Lusitanici in Broteria 1903, vol. II, 2766 pag. 91. — Habitus Hypomycetis; peritheciis dense gregariis vel rarius connatis, ovato-globosis v. ovatis, papillatis, 160-200 μ . latis, roseo-auroreis, exsiccando saturatioribus, subiculo byssoideo, albedo, innatis; ascis cylindraceis, apice truncatis, 110-120 \approx 8-9; sporidiis hyalinis, ellipsoideis 1-septatis, demum ad septum subconstrictis 12-17 \approx 6-7. Subiculum *Fusarium* sistens: hyphis 3-4,5 μ . cr., apice conidia falcata 3-5-septata, hyalina 40-50 \approx 4-4,5 gerentibus.

Hab. ad asseres Pini halepensis in Lusitania.

42. *Nectria pipericola* P. Henn. Fungi Amaz. II, p. 244. — Peritheciis plerumque meliolicolis, sparsis vel aggregatis, vix conspicuis, ovoideis, papillatis vel collapsis, pallide flavidis vel carneis, pilosis, ca. 80 \approx 60, basi hyphis repentibus, hyalinis, ramosis, septatis 3-3½ μ . circumdatis; ascis subfusoideis v. clavatis, 18-25 \approx 5-7, apice obtusis tunicatis; sporidiis subdistichis fusoideis, rectis vel curvulis, 2-guttulatis, medio 1-septatis, haud constrictis, hyalinis, 8-10 \approx 3.

Hab. in foliis Piperis sp. ad hyphas Meliolæ, Fortaleza Amazoniæ.

43. *Nectria byssiseda* Rehm in Rabenhorst-Pazschke Fung. eur. 2768 n. 4152. — Peritheciis dispersis, sessilibus, in medio mycelii tenuissimi cinereo-albi ex hyphis centrifugis, ramosis, septatis, hyalinis, 3 μ . latis constructi, maculas epiphyllas, subrotundas, ca. 0,5 cm. lat., mucedinis instar penicilli expansas formantis, globosis, dein apice collabentibus, subcarneis, parenchymatice subhyalino-contextis, glabris, ca. 0,1 mm. diam.; ascis clavatis, 30 \approx 9, 8-sporis; sporidiis fusiformibus v. oblongis rectis, 2-cellularibus, interdum

utraq̃ue cellula nucleo 1 instructa, ad septum haud constrictis, hyalinis $9 \approx 3$, distichis; paraphysibus filiformibus, hyalinis.

Hab. in fol. Pavoniæ spec. Sao Francisco, Estado Sta. Catharina Brasiliæ (E. ULE). — Peritheciis sporidiisque perparvis mox inter *Hyphonectrias* dignoscenda. Ex ipso cl. auctore (Hedw. 1900 p. 223) esset species eadem ac *Calonectria tubaroensis* Rehm, tamen, teste cl. Hennings, Hedw. 1904, p. 244, sporidiis fusoides 1-septatis tute distinguitur.

44. **Nectria moschata** Glück — Syll. XIV, p. 638. — Cfr. quoque Glück in Engl. Jahrbüch. 1902, p. 495, tab. XV-XVI.

VII. *Cosmospora* Sacc.

45. **Nectria Rickii** Rehm in Hedw. XLIV, p. 2. — Peritheciis dispersis 2769 sessilibus, conoideis, glabris, aurantio-rubris, 150 μ . alt.; ascis cylindraceis $60-70 \approx 5$, octosporis; sporidiis oblongis, utrinque rotundatis, medio septatis, utraq̃ue cellula minute 1-guttulata, non constrictis, tenuissime verrucosis, hyalinis, dein flavidulis, $5-6 \approx 3,5-4$, monostichis; paraphysibus tenerrimis, ramosis.

Hab. in stromate Kretzschmariae lichenoidis, Sao Leopoldo Brasiliæ (Prof. Rick). — A *N. episphaeria* var. *Kretzschmariae* et *N. xanthostromate* sporidiis minutis tenuiter verrucosis distinguenda species.

46. **Nectria stigma** Rehm in Hedw. XLIV. — Peritheciis gregariis, 2770 sessilibus, conoideo-globosis, glabris, purpureo-rubris, apicem versus plerumque obscurius tinctis, 240 μ . alt. et lat.; ascis clavatis teneris, $80-85 \approx 12$, octosporis; sporidiis ellipsoideis, medio septatis, haud constrictis, utraq̃ue cellula gutta magna oleosa prædita, exosporio crasse verruculoso, hyalinis, $12-14 \approx 7$, distichis; paraphysibus?

Hab. in stromate destructo Kretzschmariae lichenoidis, Sao Leopoldo Brasiliæ (Prof. Rick). — A *N. xanthostromate* præcipue sporidiis majoribus, crasse verrucosis dignoscitur. El. sect. *Cosmospora*.

VIII. *Phaeonectria* Sacc.

47. **Nectria madeirensis** P. Henn. Fungi Amaz. II, p. 244. — Pe- 2771 ritheciis gregarie caspitosi, ovoideis, coccineis, pruinosis, papillatis, dein collabentibus, 250-300 μ . diam.; ascis clavatis, rotun-

dati 8-sporis, 120-130 μ .; sporidiis fusoides, utrinque obtusiusculis, rectis vel curvulis, medio septatis, haud constrictis, 20-32 \times 6-10, brunneo-fuscis.

Hab. in truncis corticatis emortuis, Marmellos, Rio Madeira Amazoniæ.

IX. *Lichenonectria* Sacc. Species lichenicolæ, parasiticæ.

48. ? *Nectria epicallopisma* (Arn.) Sacc. et D. Sacc. *Cercidospora epicallopisma* Arn. Fragm. XXV in Flora 1881, n. 20, t. VI, f. 14. 2772
— Peritheciis aurantio-rubris, exiguis; ascis 4-sporis, cylindraceis; sporidiis bicellularibus, fusoides, hyalinis, 15-18 \times 4; paraphysibus obsoletis.

Hab. in thallo *Gyalolechiæ callopismatis*, Vacluse Gallie.

49. *Nectria insidiosa* (Nyl.) Sacc. et D. Sacc. *Hymenobia insidiosa* Nyl. 2773
Lich. Alg. p. 338, Hue Add. Nyl. pag. 327, *Psora aporea* Nyl. Collect. Pyr. p. 15. — Peritheciis (?) microscopicis totis incoloribus; ascis octosporis; sporidiis oviformibus, hyalinis, 1-septatis, 12-15 \times 4-5.

Hab. in apotheciis *Lecideæ juranæ* et *Lec. phylliscocarpæ* in Gallia, Pyrenæis, Algeria. — Affinis *N. lichenicolæ*? Sed ob descriptionem imperfectam omnino dubia.

BRESADOLELLA v. Höhn. in Ann. Mycol. I (1903) p. 522 (Etym. in honorem viri clarissimi et amicissimi ab. JACOBI BRESADOLÆ, de re mycologica meritissimi). — Perithecia superficialia, sessilia, libera, globosa, carnosa, ex aureo olivascencia, pilis rigidis ornata, ostiolo minuto; paraphyses parvæ; asci clavati, octospori; sporidia hyalina, e cellulis binis, oblongis, facile jamque ipso in asco se separantibus formata. — A gen. *Neorhemia* præsertim ostioli præsentia dignoscitur.

1. *Bresadolella aurea* v. Höhn. l. c. — I. Fungus ascophorus. Plan- 2774
tula saprophytica; peritheciis sparsis, globosis, minutis, 70-110 μ . latis, ex aureo olivascens, carnis, undique pilis paucis (usque 8-10), non septatis, acutis, leniter curvatis, primum aureis, demum atris, impellucidis, brevibus, 40-70 \times 6-7, obtectis; ostiolo minuto, subpapillato; paraphysibus parvis, filiformibus; ascis tenuissimis, clavatis, acutis, numerosis, 30-36 \times 5-6, octosporis, cum paraphysibus sæpe aureo-tinctis; sporidiis subdistichis vel oblique mono-

stichis, hyalinis, oblongis, $8 \approx 1,5$ e cellulis binis, oblongo-cuneatis, facile jamque ipso in asco se separantibus formatis. — II. *Fungus conidiophorus?*: *Dendryphium Bresadolettæ* v. Höhn. — Hyphis sterilibus parvis, obsoletis; hyphis fertilibus fasciculatis, erectis, subpellucidis, fere nigris, 7-10-septatis, sæpe irregulariter brevique ramulosis, usque $450 \approx 10-11$; ramulis supra et ad basin obtusis, 1-3-cellularibus, 30-80 μ . longis; conidiis ad ramos acrogenis, solitariis vel ad 2 concatenatis, cylindraceis, utrinque rotundatis, crassiuscule tunicatis, tunica 3-5 μ . lata, septatis, non constrictis, obscure fuliginis, $48-68 \approx 14-21$.

Hab. in ligno putrido Fagi, prope Pressbaum Austriæ inferioris, loco « Viehoferin » dicto.

SPHÆROSTILBE Tul. — Syll. II p. 511, IX p. 972, XI p. 389.

1. *Sphærostilbe hypocreoides* P. Henn., Fungi blumenavienses II, in ²⁷⁷⁵ Hedw. 1902, p. 4. — Stromatibus carnosis, rotundato-hemisphaericis, flavo-subcarnescentibus, ca. 1-2 mm. diam.; peritheciis subimmersis, subglobosis, ostiolo papillato-prominulis, minutis; ascis cylindraceo-clavatis, obtusis, octosporis, 65-75 μ . long. p. sp. 50-60 \approx 57; sporidiis oblique monostichis, ellipsoideis, utrinque rotundato-obtusis, biguttulatis, dein medio 1-septatis, haud constrictis, 9-12 \approx 4-5,5 hyalinis, levibus; fasciculis conidiophoris clavatis, pedicello ca. 600 \approx 60, capitulis subglobosis ca. 150-180 μ . diam., flavidis; conidiis ellipsoideis, 8-10 \approx 4-5, hyalinis.

Hab. in truncis, St. Catharina Brasiliæ austr.

2. *Sphærostilbe marmellosensis* P. Henn. Fungi Amaz. II, p. 245. ²⁷⁷⁶
— Peritheciis caespitose erumpentibus, ovoideis, obtuse papillatis, rufo-brunneis vel suboccineo-fusculis, ca. 150-200 μ .; ascis clavatis, obtusis, 50-80 \approx 15-18, 8-sporis, subdistichis ellipsoideis vel subclavatis, utrinque obtusis, medio 1-septatis, hyalinis, 15-20 \approx 7-8; conidiis clavatis vel stipitato-spathulatis, flavido-brunneolis, obtusis, ca. 1 mm. longis, 250 μ . crassis; conidiis fusoides, hyalinis $2\frac{1}{2}-3 \approx 1$.

Hab. in corticibus arborum Marmellos, Rio Madeira Amazoniæ.

RHYNCHONECTRIA v. Höhnel, Fragmente zur Mykologie 1903, p. 37 (Etym. *rhynchos* rostrum et *Nectria*). — Perithecia superficialia, carnosae, pallidae v. læte coloratae, elongatae, ostiolo acute terminatae; asci 4-8-spori; sporidia hyalina fusiformia, 1-septata, utrinque ciliata. — Ab *Eleutheromycete* sporidiis bilocularibus dignoscitur

et in Tab. comp. (Syll. XIV, p. 24) casulam n. 74^{bis} inter Hypocreaceas occupabit.

1. *Rhynchonectria longispora* (Phill. et Plow.) v. Höhnelt l. c. *Eleutheromyces longisporus* Phill. et Plowr. — Syll. IX, p. 942.

PODOCREA Sacc. — Syll. II p. 530, XIV p. 645 XVI p. 587 (ut subgen.). — Penz. et Sacc. in Malpighia 1902, p. 229 (Etym. *pous podos*, pes et *crea* pro *Hypocrea*). Ab *Hypocrea* distinguitur stromate verticaliter elongato, ostioliis brevibus. — Huc ducendæ sunt species sequentes: *Podocrea larvata* (Mont.) Sacc. et D. Sacc., *Pod. Petersii* (B. et C.) Sacc. et D. Sacc., *Pod. brevipes* (Mont.) Sacc. et D. Sacc. (omnes Syll. II, p. 530-531 sub *Hypocrea*); *Pod. Cornudamæ* (Pat.) Sacc. et D. Sacc. (Syll. XIV, p. 644); *Pod. deformans* (Bomm. et Rouss.) Sacc. et D. Sacc., *Pod. poronioidea* (A. Möll.) Sacc. et D. Sacc., *Pod. pezizoidea* (A. Möll.) Sacc. et D. Sacc., *Pod. sphæroidea* (A. Möll.) Sacc. et D. Sacc. (omnes Syll. XVI, p. 587).

1. *Podocrea Cordyceps* Penz. et Sacc. in Malpighia 1902, p. 229 et 277 Icon. Fung. Javan. tab. 36, fig. 4. — Sparsa, simplex, teretis-clavata, erecta, carnosa, coccinea, glabra, 5-6 cm. alta, 3 mm. cr. (in clava), stipite cylindraco, clavam subæquante et ea vix subtiliore, nempe 2,5 mm. cr.; clava apice obtuse tenuata, ostioliis minutissime punctata; peritheciis globulosis, 180-250 μ . diam., ostioliis vix prominentibus; ascis cylindracois, in ostiolum convergentibus, 70-80 \approx 3,5, facile fluxilibus, octosporis, obsolete paraphysatis; sporidiis monostichis, oblongis, bilocularibus, inter se arete approximatis, utrinque obtusis, hyalinis 8-10 \approx 3, articulis elliptico-cuboideis, 4-5 \approx 3, facile secedentibus, dein echinulato-asperulis.

Hab. ad terram, forte ex sclerotio quodam, Tjibodas, in insula Java (M. FLEISCHER). — *Podocrea* Sacc., hucusque ut subgenus habita, formis novis et conspicuis accedentibus, in generis honorem extolli meretur. Præsens species faciem *Cordycipitis* omnino reddit.

2. *Podocrea Lloydii* (Bres.) Sacc. et D. Sacc. *Hypocrea Lloydii* Bres. 2778 in Lloyd, Mycol. Not. 1902, n. 9, p. 87 c. ic. — Habitu omnino *Cordycipitis*; stromate longe stipitato, apice clavula perithecigera obovato-oblonga, 1,5 cm. longa, 3 mm. cr. farcta præditò; peritheciis minimis immersis, subglobosis, ostioliis punctiformibus prominulis ubique tectis; stipite farcto, glabro, tereti, tortuoso, al-

bido 3 cm. longo, 2 mm. cr.; ascis cylindraceis, octosporis, $100 \approx 4-5$; sporidiis in articulos 16 solatis, articulis subcuboidis, subglobosis, $3-4 \approx 3-3.5$.

Hab. in Virginia occid. (LLOYD). — Habitu *Cordycipitis* et fructificatione *Hypocrea*, ut præcedens, hinc prædistincta species!

HYPOCREA Fr. — Syll. II p. 520, IX p. 972, XI p. 361, XIV p. 641, XVI p. 583.

1. *Hypocrea cupularis* Pat. in Duss Enum. Champ. Guadel. 1903, 2779 pag. 80. — Subiculo nullo; stromatibus sparsis v. confluentibus, sessilibus, cupuliformibus, tenuibus, orbicularibus, margine integro et sinuoso, rigidulis, duris, 1 mm. diam. primitus albis, dein pallide rufis, facie superiore concavis, præter marginem sterilem, ostiolis punctatis; peritheciis immersis, punctiformibus, rufis; ascis cylindricis, rectis, $80 \approx 5$; sporidiis cylindricis v. cuneiformibus, utrinque rotundatis, in loculos binos æquales non secedentes partitis, $10 \approx 4$, incoloribus.

Hab. in cortice putri Sterculiæ caribææ, Montéran Guadalupæ.

2. *Hypocrea insignis* Berk. et Curt. — Syll. II pag. 584, ubi diagn. incompleta — Patouill. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Ascis cylindraceis $80 \approx 5$; sporidiorum articulis 16, globosis, $3-4 \mu$. diam., hyalinis

Hab. in ligno putri, in insula Martinica Amer. centr.

3. *Hypocrea hypoxylodes* P. Henn., Fungi blumenavienses II, in 2780 Hedw. 1902, p. 5. — Stromatibus carnosis, duris, breve crasseque stipitatis, hemisphærico-pulvinatis, margine obtusis, undulatis, rufo-ferrugineis, pruinosis v. subtomentosulis, 2-10 mm. diam.; peritheciis subglobosis, immersis, ostiolis punctulatis, minute subpapillatis, obscurioribus; ascis cylindraceis, apice obtuso-rotundatis, basi attenuato-stipitatis, $70-80 \approx 4$; sporidiis mox in 16 cellulas globosas hyalinas $3.5-4 \mu$. diam. secedentibus.

Hab. in truncis, S. Catharina Brasilie austr.

4. *Hypocrea rufa* (Pers.) Fr. — Syll. II, p. 520. — var. **discoidea** 2781 Rehm, Hedw. 1902, p. (206). — Stromatibus gregariis, primitus in mycelio tenuissimo late expanso, albo sessilibus, discoideis, orbicularibus, vix lobatis, haud tuberculosi nec convexi, in sicco planis, crasse pseudomarginatis 2-4 mm. diam., 1 mm. crassis, junioribus citrinis, subalbido marginatis, adultis subolivaceis, su-

perficie minutissimis ostiolis fuscidulis punctulatis, intus albidis, stromate exteriore flavescente; peritheciis circ. 200 μ . diam.; sporidiis globosis 3 μ . diam. hyalinis.

Hab. ad truncos in Europa et Amer. bor.

5. *Hypocrea xylariicola* P. Henn. Fungi S. Paulenses III, p. 206. — 2782

Stromatibus ceraceo-carnosis, isabellinis, pulvinato-effusis, 1-4 mm. diam., ostiolis punctoideis, fuscidulis; peritheciis immersis ovoideis, 90-120 μ .; ascis cylindraceis obtusis, 70-85 \approx 4 $\frac{1}{2}$ -5 $\frac{1}{2}$; cellulis sporidiorum, 16, subcuboideis v. subglobosis ca. 4-5 μ , episporio levi flavidulo.

Hab. in stromate Xylariæ spec., Serra de Cantareira Brasilæ.

6. *Hypocrea tangensis* P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. 2783

XXVIII, p. 38. — Stromatibus carnosus, pulvinato-effusus, flavidis, ca. 1 cm. diam.; ostiolis vix obscurioribus, subconoideo-prominulis; peritheciis immersis, subglobosis vel ovoideis; ascis cylindraceis, apice obtusis, basi paullo attenuatis, intus primo 8-septatis, dein octosporis, 80-100 \approx 4,5-5; sporidiis monostichis e cellulis duabus æqualibus, cuboideo-ellipsoideis, 1-guttulatis, 4-5 \approx 3,5-4, hyalinis.

Hab. in lignis, Usambara Africæ or. (KUMMER).

7. *Hypocrea umbilicata* P. Henn. Fungi blumenavienses II, in Hedw. 2784

1902, pag. 5. — Lignicola; stromatibus carnosus, hemisphæricis, centro umbilicato-depressis c. 7-9 mm. diam., e flavido subcarne-scentibus; peritheciis subglobosis ca. 180-200 μ . diam., hemisphærico-papillatis; ascis cylindraceis, apice obtusis, basi attenuato-stipitatis 40-50 \approx 3-4; cellulis sporidiorum (16) globosis, ca. 3 μ . hyalinis.

Hab. in truncis, St. Catharina Brasilæ austr.

8. *Hypocrea platensis* Speg. in Ann. Soc. Cient. Arg. 1899, p. 270. 2785

— Stromatibus sparsis v. laxè gregariis, orbicularibus 2-5 mm. diam., superne concaviusculis vel vix undulatis, epunctatis, aurantiis, margine acutis integris, inferne convexulis, pallidis, glaberrimis, latiuscule adnato-sessilibus; peritheciis numerosissimis constipato-globulosis 90-100 μ . diam., vix ostiolatis, melleis, nucleo olivaceo-farcto; ascis cylindraceis, antice obtuse rotundatis, postice breviter attenuato-pedicellatis 70-90 \approx 4-4,5, octosporis aporaphysatis; sporidiis rectis, monostichis, olivaceis, bilocularibus, loculis mox secedentibus, globosis v. subglobosis 3,5-4 levibus.

Hab. ad ramos dejectos putrescentes Erythrinæ crista-

galli in insula Santiago, prope La Plata Argentinae. — *Hyp. pezizæformi* simillima, sed stromatibus aurantiis sporidiisque olivaceis sat recedens.

9. **Hypocrea pulchella** Penz. et Sacc. in Malpighia 1901, pag. 229, 2786
Ic. fung. Jav. t. XXXVI, f. 3. — Stromatibus gregariis, minutis, sessilibus, disciformibus, 0,7 mm, subplanis, succineo-aurantiis, minutissime verruculosus, ostiolis perexiguus obscurius punctatis; peritheciis globulosis, numerosis; ascis cylindraceutis apice rotundatis, deorsum sensim leviter tenuatis 45-50 \approx 2,8-3, octosporis; sporidiis monostichis, bilocularibus, olivaceis, dein in articulos globosos, 2,5-3 μ . diam. dilabentibus.

Hab. in ramis corticatis emortuis prope Buitenzorg, in insula Java. — Affinis *H. Catoptro*, sed asci et sporidia dimidio breviora. Ascomata in alcohole dilute flavida.

10. **Hypocrea rufo-alutacea** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 6. — Ascomatibus carnosus, firmis, turbinato-scutellatis, extis rufo-brunneis, pruinosis, disco alutaceo, plano v. undulato, ca. 3 mm. 1 cm. diam.; peritheciis immersis, subglobosis, ostiolis punctulatis obscurioribus; ascis ca. 60-65 \approx 4-4,5, octosporis, apice rotundatis, basi attenuatis; cellulis sporidiorum globosis v. cuboideo-angulatis ca. 3,5-4, primo flavis dein brunneorufis, levibus.

Hab. in ligno emortuo, St. Catharina Brasiliæ austr.

11. **Hypocrea porioidea** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 2788
— Stromatibus crustaceo-effusus, planis, gregario-confluentibus, poroideis, pallide ferrugineis, ambitu albo-byssinis, plerumque 3-5 mm. diam.; peritheciis immersis, subglobosis vel ovoideis 80-110 μ . diam., ostiolis punctiformibus, ferrugineis; ascis cylindraceutis, apice obtusis, octosporis, ca. 55-66 \approx 3,5-4; cellulis sporidiorum globoso-subcuboideis, hyalinis, 1-guttulatis 3-3,5.

Hab. in ramis emortuis, Ost-Usambara Africae orient. (ENGLER).

12. **Hypocrea discelloides** P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. 2789
— Stromatibus rotundato-pulvinatis, applanatis vel subgloboso-depressis, 1-2 mm. diam., primo citrinis, dein aurantio-fuscescentibus, ostiolis minute punctoideis, obscurioribus; peritheciis immersis, ovoideis ca. 150 μ .; ascis cylindraceutis, apice obtusis, octosporis, 40-60 \approx 2,5-3; sporidiis globosis, hyalinis 2,5 μ . diam.

Hab. in truncis emortuis, West-Usambara Africae orient. (ENGLER).

13. **Hypocrea Agaves** Maublanc in Bull. Soc. Myc. de France 1903, 2790

fasc. 3, p. 292, tab. XV, fig. 3. — Stromatibus in maculis obsoletis, aggregatis, superficialibus, atro-purpureis, mammosis, orbicularibus v. oblongis; peritheciis globosis vel ovatis, ostiis prominulis; ascis aparthysatis, fusoides, utrinque attenuatis, brevissime pedicellatis, octosporis, $60-70 \times 18-20$; sporidiis hyalinis, inordinatis, fusiformibus, obtusis, 1-septatis, ad septum breviter contractis, $23-26 \times 6-7$.

Hab. in foliis *Agaves* spec. in Mexico.

HYPOMYCES Fr. — Syll. II p. 466, IX p. 954, XI p. 356, XIV p. 641, XVI p. 582.

1. **Hypomyces Bresadolæ** Sacc. Notæ Myc. in Syd. Ann. Myc. 1903, 2791 pag. 25. — Subiculo membranaceo-carnosulo, versiformi, pallido, glabrescente, ex hyphis crassiuscule cylindræis, parce ramosis $7-12 \mu$. cr., septatis, dense intermixtis formato; hyphis exterioribus fertilibus; conidiis perfecte globosis, crasse tunicatis, minute muriculatis, $28-32 \mu$. diam., pallide citrinis; peritheciis globoso-conicis, parte inferiore subiculo immersis $80-100 \mu$. diam., glabris, carnosulis, rubro-aurantiis; ascis cylindræis, obtuse tenuatis, breve stipitatis $150-160 \times 7-9$, octosporis, aparthysatis; sporidiis fusoides, recte v. oblique monostichis, $18-21 \times 5-6$, biguttatis, tandem tenuiter 1-septatis, hyalinis.

Hab. ad acus, frustula lignea *Abietis excelsæ*, in silva Tertiolesi, Val di Sole agri Tridentini. — Affinis *H. chrysospermo*, a quo recedit habitatione, subiculo, conidiis multo majoribus et citrinis etc. St. conidicus *Sepedonii* speciem sistit.

2. **Hypomyces Biasolettianus** (Br. et Farn.) Sacc., *Chrysoglutem Biasolettianum* Br. et Farn. Int. ad un nuovo tipo di Licheni a tallo conidifero, p. 15, tab. V-VI (Atti Ist. Bot. Pavia vol. VIII, 1902). — Thallo seu stromate conidiophoro et ascophoro *Pionnotem Biasolettianam* (Corda) Sacc. sistente; peritheciis plus minus dense gregariis, primum subglobosis, in superficie thalli inclusis, dein piriformibus, ostiis conicis emergentibus, vertice pertusis, rubro-aurantiis, carnosis, contextu parenchymatico, aurantiaco, $200-250 \times 130-150$; ascis cylindræis, breve stipitatis, aparthysatis apice rotundatis (initio sub apice contractis ut in *Nectriaceis*!), octosporis, $80-90 \times 7-7.5$; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, rectis, $12-13 \times 6-7$, intus granulosis, hyalinis.

Hab. ad trancos languidos v. demum emortuos *Vitis vinifera*, Vercelli, Milano, Vicenza, Treviso etc. in Ital. bor. — CH.

Briosi et Farneti, suspicati algulas quasdam virentes 1-paucicellulares intra thallum *Pionnotis* visas, sistere stratum gonidicum lichenis proprii, stirpem hanc pro novo genere et nova lichenum familia (*Chrysoglutinaceæ*) descripserunt; sed hanc attributionem habitus omnino funginus utriusque formæ evidentissime excludit. Certe de *Hypocreaceo* fungo agitur, *Hypomycei Trichodermati* (Hoffm.) Sacc. Syll. II, 475 proximo, nec obstat matrix non fungina, cum species nonnullas *Hypomycetis* non fungicolas habeamus. — Specimina perfecte matura cl. prof. Brizi communicavit.

3. **Hypomyces Arecæ**. Baccarini, in Nuovo Giorn. bot. ital. 1902, 2793 vol. IX, n. 4, pag. 497. — Peritheciis gregariis vel pro natura matricis, plus minus dense stromaticis, rotundis, stromate immersis vel semiimmersis et emersis, aureo-flavis, epapillatis, 0,3 mm. latis; ascis linearibus $38 \approx 4$ octosporis; sporidiis oblique monostichis, ellipticis, uni-septatis, ad septum non vel vix constrictis, $9,5 \approx 3,5$; hyphis conidiophoris sejunctis candidulis v. roseis, juventute simplicibus vel sæpius, instar *Verticillii* vel (senectute) *Penicillii*, ramosis; ramulis ad quemquam articulum ternis v. quinis, acuminatis 20 μ . longis, 2 μ . latis; conidiis ellipticis $3,8 \approx 2,5$ hyalinis vel coacervatis isabellinis, simplicibus; sclerotiis? rotundis, perexiguus 0,4 mm. latis, medulla pseudoparenchymatica oleosa; cortice lutescente.

Hab. in foliis siccis *Arecæ* madagascariensis in horto botanico Firenze Italiæ centr.

4. **Hypomyces albidus** Rehm, Hedw. 1903, p. (291). — Peritheciis gregariis, sessilibus, in mycelio late expanso albissimo hypharum rectangulariter ramosarum, hyalinarum, septatarum 4-5 μ . cr., globosis, demum subconcoideis, vix papillulatis, hyalinis, demum subflavidulis, in sicco collabentibus, parenchymatice contextis, 150-200 μ . diam.; ascis cylindraceis $120 \approx 9$, octosporis e paraphysibus nullis; sporidiis ellipsoideis, utrinque acutatis, medio septatis et vix constrictis, utraque cellula guttam magnam oleosam includente, utroque apice minutissime appendiculatis, hyalinis, scabriusculis 20-22 \approx 7-8, 4-8 monostiche positiss.

Hab. parasitica in hymenio *Sterei* sanguinolenti, Schneeberg Austriæ inf. (Doct. v. HÖHNEL).

5. **Hypomyces arenaceus** Annie L. Smith, Journ. Linn. Soc. XXXV, 2795 p. 17, tab. III, fig. 6-8 (extr.) — Syll. XVI, p. 1140 (nomen). — Peritheciis sparsis v. confertis, arenæ micæ æmulantibus, fulvis, exiguis, circa 150-250 μ . diam.; ascis cylindraceis, angustis,

100 μ . longis; paraphysibus filiformibus; sporidiis monostichis, ovato-oblongis, circiter $10 \approx 4-5$, uniseptatis, hyalinis.

Hab. in hymenio Sterei, in insula Dominica Indiæ occid.

6. **Hypomyces galericola** Henn. in Hedw. 1902, p. (214). — Mycelio 2796
byssino, flavidulo, hyphis ramosis, septatis, hyalinis ca. $2,5-3,5 \mu$. crassis; peritheciis sparsis vel aggregatis, subgloboso-ovoideis, vertice minute papillatis, pallide flavis; ascis oblonge clavatis, apice obtusis, octosporis, $90-120 \approx 9-11$; sporidiis subdistichis, subfusoides, curvulis, utrinque subacutiusculis, medio 1-septatis, hyalinis $12-15 \approx 3,5-4$.

Hab. parasitice in Galera rubiginosa, pr. Cairo Ægypti.

7. **Hypomyces caulicola** P. Henn. Fungi blumenavienses II in Hedw. 2797
1902, p. 2. — Stromatibus cauliculis, pulvinatis $1-1,5$ mm. diam.; hyphis septatis, ramosis, hyalinis $4-6 \mu$. cr. circumdati; peritheciis semiliberris subovoideis, apice rotundatis, luteo-carnescentibus $180-200 \mu$. longis. $90-100 \mu$. latis; ascis cylindraceo-clavatis vel subfusoides, apice obtusiusculis vel acutiusculis, basi attenuatis, octosporis, $55-65 \approx 4-5$; sporidiis oblique monostichis, fusoides utrinque subacutiusculis, 1-septatis, haud constrictis, hyalinis, levibus $9-11 \approx 3-3,5$.

Hab. in caulibus putridis, St. Catharina Brasilæ austr.

8. **Hypomyces sepulcralis** Pat. Champ. de la Guadeloupe, ser. III, in 2798
Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Stromate crustaceo, irregulari, albido-ochraceo, subtili; peritheciis globosis, semiimmersis, brunneis, dense congestis; ostioliis conicis, emergentibus; ascis cylindraceis, rectis $120-150 \approx 5-6$, octosporis; sporidiis monostichis, fusoides, hyalinis, non appendiculatis, paullulo rugulosis vel levibus, 1-septatis, ad septum non constrictis, $10-14 \approx 4-5$.

Hab. ad terram in sepulcreto, Guadalupe Amer. centr. — *H. terrestri* affinis.

9. **Hypomyces boletinus** Peck, Rep. State Bot. 1903, p. 15. — Peri- 2799
theciis minutis, conicis vel subglobosis, subiculo pallido vel albido dense nidulantibus, pallide rubris vel aurantiis; ascis linearibus tenuibus $100-120 \approx 7-8$; sporidiis subfusiformibus continuis (semper?) uno apice acuminatis vel apiculatis, $20-25 \approx 6-7$.

Hab. in Boleti spec. indeterminata, putrescente, socio *Sepe-donio chrysospermo*. — Ab *H. polyporino* et *H. boleticola* notis datis satis diversus.

10. **Hypomyces stereicola** P. Henn. in Hedw. 1903, p. (79). — My- 2800

celio aurantio, crustaceo, effuso, hyphis flavidis v. subhyalinis, septatis, ramosis, ca. 3-4 μ . cr.; conidiis subglobosis aurantiis, intus punctulatis, 2,5-3 μ .; peritheciis sparsis v. gregariis, liberis, ovoideis v. subglobosis, citrinis, levibus, apice papillatis, pallidioribus, 130-180 \approx 120-150; ascis cylindraceutis, apice obtusis, octosporis, 40-50 \approx 2-2,5; sporidiis monostichis, fusoides, utrinque acutis, primo continuis guttulatis, dein medio 1-septatis, haud constrictis, 4,5-5,5 \approx 1,5-2.

Hab. in pagina inferiore Sterei lobati, ubi stratum aureum format, N. Queensland Australiæ (PRITZEL).

11. *Hypomyces ?conviva* Baccarini, in Nuovo Giorn. bot. ital. 1902, 2801 vol. IX, n. 4, p. 498. — Status ascophorus ignotus; hyphis conidiophoris fulvis, sejunctis ac cæspitosis; vel in generatione e chlamydo-sporis ortis, fasciculatis, pluries verticillato-ramosis; ramulis ad quamque articulum ternis v. quaternis, ovato-acuminatis 11-18 μ . longis, 2-3 μ . latis; conidiis ellipticis, fulvis 2-3,8 μ .; hyphis conidiophoris fasciculatis ad apicem versus pallescentibus atque conidia altera hyalina gigentibus; chlamydo-sporis solitariis, obovatis, fulvis, bicellularibus; articulo superiore majore, membrana crassa verrucosa 30 \approx 28, infimo obconico 18 \approx 7, membrana levi.

Hab. in foliis siccis Arecæ madagascariensis, in horto botanico Firenze Ital. centr.

12. *Hypomyces exiguus* Pat. Champ. de la Guadeloupe, ser. III, in 281 Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Subiculo e tomento byssoideo albo contexto; peritheciis albido-luteolis, pel-lucidis 130-160 μ . diam.; ascis aparaphysatis, cylindraceutis 30-35 \approx 3-4, octosporis; sporidiis monostichis, levibus, hyalinis, ovoideis, continuis, 3-4 \approx 2.

Hab. parasitice in Stemonitis sp., Guadalupe Amer. centr.

H. violaceo Tul. affinis.

LISEA Sacc. — Syll. II p. 517, XI p. 360, XIV p. 640, XVI p. 581.

1. *Lisea Parlatoriae* A. Zimm. in Centr. f. Bakter. u. Paras. II, Abth. 2803 VII, 1901, p. 873. — Stromate parasitico; peritheciis dense gregariis, liberis, globosis, verruciformi-papillatis, 0,2-0,25 mm. long., 0,15-0,18 mm. cr., nigricantibus; contextu sub microscopio atrovio-laceo v. atro, hydrati chloralii calefacti ope amene rubro-vio-laceo; ascis cylindraceutis, 8-sporis; sporidiis ellipsoideis, obtusis, 1-

septatis, non constrictis, hyalinis v. dilutissime brunneolis, 9-12 \approx 4,5; paraphysibus nullis.

Hab. parasitice in Parlatoria Zizyphi in foliis Citri, Buitenzorg Javæ.

2. *Lisea exiguella* (Nyl.) Sacc. et D. Sacc. *Verrucaria exiguella* Nyl. 2804
Flora 1873, p. 204. — Peritheciis 100 μ . diam. super cyaneis, inferne fere achrois; ascis octosporis paraphysatis, jodo non tinctis; sporidiis fusoides, bicellularibus, hyalinis, 21-27 \approx 6-8.

Hab. in thallo Rinodinæ exiguæ prope Portum Veneris in Pyrenæis orient. Quoad genus dubia.

CORALLOMYCES B. et C. — Syll. II p. 519, XIV p. 646, XVI p. 590.

1. *Corallomyces brachysporus* Penz. et Sacc. in Malp. 1901, p. 228, 2805
Ic. fung. Jav. t. XXXVII, f. 1. — Stromatibus erectis, firme carnosus, stipitiformibus, simplicibus v. parce ramosis, sæpius cæspitosis, cylindræis, aurantiacis, rugosis 1-1,5 mm. altis, 350 μ . cr., apicibus incrassatis obtusis conidiophoris; conidiis longe anguste fusoides 100-110 \approx 6,5, leniter curvis, 8-12-septatis, non constrictis, in basidiis bacillaribus, septatis, fasciculatis 4,5-5 μ . cr. pleurogenis (nec acrogenis); peritheciis in medio stipite sessilibus, paucis, globoso-conoideis, brevissime papillatis, atro-rubris 200-240 μ . diam.; ascis cylindræis, breve stipitatis 100-110 \approx 7 octosporis; sporidiis monostichis, ellipsoideis, utrinque rotundatis, 1-septatis, non constrictis, 12-13 \approx 7 hyalinis.

Hab. ad truncos putres prope Buitenzorg in insula Java. — Ab affini *Corall. Jatrophae* A. Möll., pariter fusariogeno, differt sporidiis multo brevioribus (nec 30-40 \approx 7-9).

2. *Corallomyces mauritiicola* P. Henn. Fungi Amaz. II, p. 244. — 2806
Stromatibus fruticuloso-ramosis, cæspitosis, miniatis v. brunneo-coccineis, ramis conidiogenis erectis subteretibus vel compressis, apice clavulatis ca. 120 μ . crassis, miniatis, conidiis fusoides, hyalinis, ca. 14-18 \approx 6-7, conidiophoris hyalinis 2-3 μ . crassis, filis usque ad 100 μ . longis intermixtis; peritheciis lateraliter sessilibus, ovoideis papillatis, coccineis ca. 200 μ . diam. dein collapsis; ascis cylindræo-clavatis, obtusis, 8-sporis, 80-120 \approx 8-12; sporidiis ellipsoideis, rotundatis, medio 1-septatis paullo constrictis, 2-guttulatis, primo hyalinis dein brunneis, 11-18 \approx 6-8.

Hab. in stipitibus emortuis Mauritiæ flexuosæ, Miry, Rio Jurua Amazoniæ. — *C. eleganti* affinis.

3. **Corallomyces Caricæ** P. Henn. Fungi Amaz. II, p. 245. — Stroma- 2807
tibus pulvinatis, fruticuloso-ramosis, coccineis, ramulis compressis;
peritheciis lateraliter sessilibus, coccineis, ovoideis, obscure papilla-
tis, levibus, dein collabentibus, usque ad 1 mm. d.; ascis clavatis,
8-sporis, obtusis; sporidiis oblonge fusoideis, utrinque subobtu-
siusculis, medio 1-septatis constrictis, flavo-brunneis, 20-30 \approx 6-10,
stromatibus conidiophoris haud conspicuis.

Hab. in trunco emortuo Caricæ, Cachoeira, Rio Juruá Ama-
zoniæ. — A *C. mauritiicola* sporidiis multo majoribus dignoscitur.
C. Heinesii P. Henn. ob sporidia constanter hyalina a typo differt
et nunc *Corallomycetella Heinesii* P. Henn. vocatur.

Sect. 5. Phæodidymæ.

SPGAZZINULA Sacc. — Syll. II p. 537.

1. **Spegazzinula juglandina** v. Höhn. in Ann. Mycol. 1903, I, p. 394. 2808
— Peritheciis in cortice leviter tumefacto immersis, sparsis v. ad
2-3 conerescentibus, 300-450 \approx 200-250, ostiolo crassiusculo, papil-
lato-applanato, peridermium perforantibus; tunica 20-30 μ . crassa,
dilute brunnea, carnosio-membranacea, e cellulis distinctis, brunneis,
subtiliter tunicatis composita; nucleo pallido v. roseo; ascis pedi-
cellatis, late clavatis, membrana mox mucoso-diffuente præditis,
90-110 \approx 22-25; paraphysibus hyalinis, septatis, longissimis 5-10
 μ . crassis, guttulis repletis, obvallatis; sporidiis octonis, bi-tri-
seriatis, levibus, subtiliter tunicatis, 20-22 \approx 12-13, utrinque acutiu-
sculis, late ellipticis v. subfusoideis, loculo infero semper hyalino,
multo minore, 4-5 μ . longo, loculo supero primum roseo, demum
dilute ochraceo, crassius tunicato, 1-guttulato.

Hab. in ramulis subviviis Juglandis regiæ, Jablaniza Her-
zegovinæ.

Sect. 6. Hyalophragmiæ.

CESATIELLA Sacc. — Syll. II p. 557.

1. **Cesatiella Rehmiana** v. Höhn. Ann. Mycol. 1904, p. 39. — Stro- 2809
matibus effusis, carnosis, tenuibus, hinc inde parum distinctis, in
cortice immersis, peridermio secedente subsuperficialibus, ex pal-
lide ochraceo nigrescentibus; peritheciis in stromate immersis, so-

litariis v. ad 2-5 aggregatis, sphaeroideis, plerumque leviter applanatis, distincte papillatis, 200-500 μ . latis; nucleo sordide carneo-roseo; tunica carnosula, 20-25 μ . crassa, ochracea, contextu plectenchymatico-fibroso; ascis cylindraceo-clavatis, in basi abrupte stipitatis, sæpe curvulis, tenuiter tunicatis, apice rotundato-truncatis, 74-105 \approx 11-14, paraphysibus numerosis, longis, filiformibus, minute guttulatis, coalescentibus obvallatis; sporidiis hyalinis, ceteratim dilute roseis, octonis, biseriatis, utrinque acutiuscule rotundatis, plus minus curvulis, membrana tenui farctis, 5-cellularibus, cellulis extimis quam mediis duplo longioribus, 23-39 \approx 3 $\frac{1}{2}$ -7.

Hab. in ramulis siccis Fraxini excelsioris ad Jablaniza Herzegovinæ. — *Cesatiella selenospora* (Otth) v. Höhn. Ann. Myc. 1904, p. 41. Ita vocanda, teste v. Höhn. l. c. esset *Cladosphaeria selenospora* Otth seu *Ophiomassaria selenospora* (Otth) Jaczenski — Syll. XI p. 353 — ob peritheci contextum molliusculum, carnosum brunneum v. flavo-brunneum; sed nova epicrisis necessaria videtur ad exemplaria vegeta speciei post Otthium (1868) non repertæ.

DEBARYELLA v. Höhn. Ann. Mycol. 1904, p. 274 (Etym. a Magistro Botanices ANT. DE BARY). — Perithecia molliuscula, alba v. hyalina, in aliis Pyrenomycetis parasitica. Asci cylindranei, 8-spори, paraphysati. Sporidia oblonga, 4-cellularia, hyalina. — *Passerinula* analogum genus.

1. *Debaryella hyalina* v. Höhn. l. c. — Peritheciis conoideo-oblongis, 2810 200 \approx 140, ex hyalino flavidulis, minute prosenchymaticis, collo-longiusculo, 50-60 \approx 40, parallele parenchymatico, apice pertuso ornatiss, matrici omnino immersis et vix ostiolo emergentibus; ascis copiosissimis cylindricis, 130-160 \approx 10-12 apice rotundatis, tenui-tunicatis, breve stipitatis; sporidiis octonis, monostichis, fusoides, utrinque obtusiusculis, 21-26 \approx 6-7, hyalinis, 4-ocularibus, grosse 4-guttatis, rectis curvulisve; paraphysibus gracilibus.

Hab. in cavitate perithecorum Eutypæ scabrosæ, Dachsbauberg Pfalzau, Wiener Wald Austriæ.

CALONECTRIA De Not. — Syll. II p. 540, IX p. 982, XI p. 363, XIV p. 647, XVI p. 593.

1. *Calonectria Coffeæ* A. Zimm. in Centr. f. Bakter. Paras. 1901, n. 4, 2811 p. 139. — Peritheciis vulgo dense gregariis, superficialibus, globosis, læte flavis, ostiolo papillato atro-cyaneo, 0,26-0,3 mm. diam.;

ascis tetrasporis; sporidiis utrinque obtusulis, leniter curvis, hyalinis v. dilute brunneolis, 4-cellularibus, $21 \approx 5,4-6,3$.

Hab. ad corticem *Coffeæ arabicæ*, Buitenzorg Javæ.

2. **Calonectria cremea** A. Zimm. in Centr. f. Bakter. Paras. 1901, n. 4, 2812 p. 140, fig. 9. — Peritheciis superficialibus, in greges plerumque approximatis, globosis, lacte cremeo-flavis, 0,2 mm. diam., ostiolo prominulo, achromo; ascis clavatis, breve crasseque noduloso-stipitatis, 4-sporis aparaphysatis; sporidiis tereti-oblongis, utrinque rotundatis, leniter curvis, 4-cellularibus, ad septa leviter constrictis, hyalinis, $23-25 \approx 7-8$.

Hab. in fructibus emortuis *Theobromæ Cacao*, Buitenzorg Javæ.

3. **Calonectria Blumenaviæ** P. Henn. Fungi blumenavienses II, in 2813 Hedw. 1902, p. 6. — Peritheciis sparsis, ovoideis, apice papillatis, flavidis vel dilute brunneolis, levibus $200-210 \approx 150-180$; ascis clavatis v. fusoides, rectis v. curvulis, apice obtusiusculis $35-60 \approx 9-12$, octosporis; sporidiis oblique monostichis vel subdistichis, oblonge fusoides, sigmoideo-flexuosis, utrinque acutiusculis $5-7$ -septatis, haud constrictis $20-30 \approx 3,5-4$, hyalinis, levibus.

Hab. in caule *Bambusarum*, St. Catharina Brasilæ austr.

4. **Calonectria Höhnellii** Rehm apud v. Höhn. in Ann. Mycol. 1904, 2814 p. 43. — Peritheciis dispersis et singulatim in centro mycelii tenuis, rosei vel sanguinei, ex hyphis radiatim expansis formati et maculas hypophyllas, vix $\frac{1}{2}$ mm. latas præbentis sessilibus, depressoglobulosis, supra glabris, infra pilosis, poro vix conspicuo, membranaceis, sanguineis, demum fusciscentibus, $150-300 \mu$. latis, in sicco collabentibus, contextu parenchymatico; ascis clavato-fusiformibus, breve noduloso-pedicellatis, $56-76 \approx 9-10$, octosporis; sporidiis di-tristichis, fusoides, utrinque acutis, rectis v. subcurvulis, 4-cellularibus, haud constrictis, hyalinis, $20 \approx 3-4$; paraphysibus copiosis, subtilibus, filiformibus, ascos superantibus.

Hab. in pagina inferiore foliorum *Psidii* spec. prope Petropolin, Rio de Janeiro Brasilæ, mense Augusto 1899 (DE HÖHNEL).

5. **Calonectria Meliæ** A. Zimm. Centr. f. Bakter. Paras. 1901, n. 3, 2815 p. 106, fig. 7-8. — Peritheciis subglobosis, confertis greges $1-3$ mm. lat. formantibus, flavidis, pulvereis, $0,2-0,3$ mm. diam., ostiolo prominenti achromo; ascis tereti-clavatis 10μ . long. 4-sporis; sporidiis hyalinis, rectis curvulisve, oblongis, utrinque rotundatis, $28-32 \approx 9-12$, plerumque quadrilocularibus, rarius $5-6$ -locularibus.

Hab. in trunco emortuo *Meliæ argutæ* in hortis Buitenzorg

Javæ. — Ante perithecia evolvitur forma conidica *Fusarii* speciem sistens: hyphis fertilibus verticillato-ramosis, conidiis cylindræis parum curvis, 6-8-cellularibus $46-64 \times 5,3-6,5$. A *C. cucurbitula* ascis 4-sporis; sporidiis majoribus distincta.

6. *Calonectria intermixta* P. Henn. Fungi blumenavienses II, in Hedw. 2816
1902, p. 6. — Peritheciis sparsis v. aggregatis, ovoideo-subglobosis, papillatis, rufo-brunneis ca. 200-300 μ . diam., contextu pseudo-parenchymatico, flavo-brunneo; ascis clavatis v. subfusoides, apice subobtusis $60-80 \times 15-20$, octosporis; sporidiis fusoides oblongis, curvulis v. sigmoideis, utrinque acutiusculis 5-10 septatis, haud constrictis, hyalino-flavidulis $35-50 \times 6-8$.

Hab. in ramis corticatis, intermixtis *Eriosphæra* spec. et *Ophioceratis* spec., St. Catharina Brasilæ austr.

7. *Calonectria ornata* Annie L. Smith. Journ. Linn. Soc. XXXV, 2817
p. 18, tab. III, fig. 9-10 (extr.). — Syll. XVI, p. 1141 (nomen). — Peritheciis minutis, sparsis, circa 300 μ . latis, aurantiacis, superficialiter cellulis prominentibus vestitis; ascis cylindræo-fusiformibus, apice angustioribus, deorsum attenuatis, breviter pedicellatis $180-200 \times 20-30$; sporidiis elongatis, ascis fere æquilongis, 10-pluri-septatis, viridi-hyalinis.

Hab. in ramis in insula Dominica Indiæ occid.

8. *Calonectria vermispора* Mass. et Crossl. in the Natur. 1904, p. 4. 2818
— Peritheciis gregariis vel sparsis, globoso-conoideis, carneo-rufescentibus, cellulis rotundatis contextis 0,5 mm. diam., pilis hyalinis apice acutis, brevibus, $80-100 \times 8$, sparsis vestitis; ascis mox evanidis; sporidiis elongato-fusoides vel vermiformibus, leniter sigmoideis, hyalinis, 12-24-septatis, $60-100 \times 8-10$.

Hab. in truncis decorticatis, dejectis, Hardcastle Britanniae (J. NEEDHAM).

9. *Calonectria* (Chiajæa) *Atkinsonii* Rehm, Ann. Mycol. 1904, p. 178. 2819
— Peritheciis gregariis, sessilibus, globoso-conoideis, in papillulam nigram protractis, extus primitus furfuraceis, flavo-fuscidulis, demum nigricantibus, parenchymatice contextis, extus hyphis nonnullis brevibus fuscis 3-4 μ . crassis, conidia oblonga, fusca, 1-cellularia, $7 \times 3-5$ gerentibus, obsessis, 500 μ . diam.; ascis clavatis, apice rotundatis, crasse tunicatis $90-100 \times 15-17$, octosporis; sporidiis primitus fusoides, dein superiore dimidia parte crassiore, transverse 2-demum 3-septatis, medio subconstrictis, rectis, hyalinis, denique fuscidulis, $27-33 \times 8-9$, distichis; paraphysibus filiformibus 3 μ . crassis.

Hab. ad corticem, Mac Kinney Glon Amer. bor. (RITERS).

PARANECTRIA Sacc. — Syll. II p. 552, IX p. 987.

I. *Eu-Paranectria*.

1. **Paranectria Pritzelliana** P. Henn. in Hedw. 1903, p. (79). — Pe- 2820
 ritheciis aggregatis, subgloboso-ovoideis, cinnabarinis, dense furfuraceo-squamosis, hyphis ca. 25-45 \times 3, apice subcinereo papillatis, ca. 200-250, contextu cellulis rotundato-polyhedricis, ca. 15-20 μ . diam., coccineis; ascis fusoides, utrinque subacutiusculis, octosporis, 60-80 \times 14-20; sporidiis conglobatis vel subtristichis, fusoides-cylindratis, 3-septatis haud constrictis, 30-42 \times 4-5 hyalinis, basi vel utrinque setulis filiformibus 30-45 \times 2.

Hab. in truncis emortuis Lianarum, ad fl. Russel, N. Queensland Australiæ (PRITZEL).

II. *Paranectriella* P. Henn. Perithesia hypostromate fulta.

2. **Paranectria stromaticola** P. Henn. in Engl. Bot. Jahrb. 1903, 2821
 p. 50. — Mycelio albido, effuso, arachnoideo, hyphis repentibus, septatis, 3-4 μ . cr., hyalinis; peritheciis sparsis, subglobosis, pallide flavidis, membranaceo-molliusculis, cellulosis, 150-200 μ . diam.; ascis fasciculatis, clavatis, apice tunicato-rotundatis, octosporis, 65-80 \times 13-18; sporidiis oblique monostichis vel distichis, lanceolatis, subovoideo-fusoides, hyalinis, 3-septatis, 13-18 \times 6-8, longo utrinque rostratis, rostro superiori oblique conoideo, ca. 4-6 μ . longo, rostro inferiori oblonge setaceo 15-20 μ . longo, hyalino.

Hab. in foliis Berliniæ spec.?, Ost Usambara Africae orient. (ZIMMERMANN).

3. **Paranectria juruana** P. Henn. Fungi Amaz. II, p. 245, tab. IV, 2822
 fig. 8. — Stromatibus ceraceis plerumque in Dothideacea parasitantibus, pulvinato-effusis, byssinis, albidis, usque ad 1 mm. diam.; peritheciis aggregatis superficialibus, ovoideis, subpapillatis, collabentibus, flavidulo-subincarnatis, 120-150 μ .; ascis clavatis, obtusis, 8-sporis, 70-100 \times 8-12; sporidiis oblique monostichis v. subdistichis, subfusoides, hyalinis, 3-septatis, 10-12 \times 4-5, utrinque rostratis, rostris filiformibus, curvulis ca. 6-8 μ . longis.

Hab. in foliis Miconiæ ad stromata Auerswaldiæ Miconiæ Juruá-Miry Rio Juruá Amazoniæ. — A specie præcedente omnino distincta.

BROOMELLA Sacc. — Syll. II p. 557, IX p. 988, XI p. 364, XIV p. 650.

1. **Broomella Ichnaspidis** A. Zimm. Centr. f. Bakter. Paras. II, Abth. 2823
1901, VII, p. 874, f. 3. — Stromate parasitico, carnoso, pustuloso, extus subhyalino, intus sanguineo; peritheciis in quoque stromate pluribus, usque medietatem immersis, brunneis, subglobosis vertice dein apertis; ascis cylindraceis, leviter curvis, 8-sporis, 95-120 μ . long.; sporidiis clavato-bacillaribus, hyalinis, inasco dilute brunneolis, usque 16-ocularibus, non constrictis, sæpe curvulis (in articulos, ut videtur, non dilabentibus).

Hab. parasitice in Ichnaspide filiformi ad folia Elæis et Coffeæ libericæ pr. Buitenzorg Javæ. — Var. **major** Zimm. l. c. — A typo differt ascis 170 μ . longis, sporidiis æque bacillaribus non clavatis usque 155 μ . longis. — Parasitice in Diaspidis sp. ad folia Pierardiæ pr. Buitenzorg (RACIBORSKI).

GIBBERELLA Sacc. — Syll. II p. 552, IX p. 988, XI p. 363, XIV p. 649, XVI p. 599.

1. **Gibberella Saubinetii** (Mont.) Sacc. — Syll. II, p. 554. — var. **Calami** P. Henn. in Hedw. 1903, p. (79). — Peritheciis gregariis, subconnoideis, ca. 150-180 μ . diam., atro-violaceis; hyphis hyalino-fusculis, septatis, ca. 5 μ . cr.; ascis clavatis ca. 70 μ . long. p. sporif. 30-50 \approx 3-10; sporidiis distichis, fusoides, curvulis, 3-septatis, hyalinis 20-23 \approx 4-4,5.

Hab. in foliis Calami spec., N. Queensland Australiae (PARRIZEL). — Var. **tetraspora** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 302. — A typo differt præcipue ascis tetrasporis, 66-78 \approx 9-12; sporidiis triseptatis non constrictis 22-30 \approx 4,5-6,5, contextu violaceo. — In caulibus emortuis Humuli Lupuli, Luxemburg. — var. **acuum** Feltg. l. c. p. 303. — Differt præcipue habitatione et contextu molliore. — In foliis emortuis Pini silvestris, Luxemburg.

2. **Gibberella Tritici** P. Henn. in Hedw. 1902, p. 301. — Peritheciis 2825
innato-superficialibus, sparsis v. dense cæspitosis confluentibusque, 120-180 μ . diam., sessilibus, membranaceis, subglobosis, paullo papillatis, dein collabentibus, atris, rugulosis, contextu pseudoparenchymatico atro-violaceo; ascis subfusoides, utrinque attenuatis, apice subacutiusculis vel obtusis 38-48 \approx 6-8, octosporis; paraphysibus filiformibus, hyalinis, 2-3 μ . crassis; sporidiis oblique mono-

stichis vel subdistichis, fusoideis, utrinque acutiusculis, 3-septatis, haud constrictis, hyalinis, 15-21 \times 3,5-4,5.

Hab. in caryopsidibus et in glumis Triticæ Speltæ, S. Paulo Brasiliæ.

3. *Gibberella cantareirensis* P. Henn. Fungi S. Paulenses III, p. 205. 2826
 — Peritheciis cæspitose gregariis submembranaceis, atro-cæruleis, ovoideis, papillatis, ca. 200 μ . diam., contextu cellulis subrotundatis cæruleo-violaceis ca. 12-18 μ .; basi hyphis repentibus, subviolaceis ramosis, 2-5 μ . crassis; conidiis fusoideis, curvulis, 5-septatis 25-30 \times 4-5; ascis cylindraceo-clavatis, pedicellatis, 8-sporis, 60-100 \times 6-9; sporidiis oblique monostichis v. distichis, fusoideis, utrinque acutiusculis, 3-septatis haud constrictis, hyalino-violascentibus, 20-25 \times 4-6.

Hab. in ramis emortuis indet. Serra da Cantareira Brasiliæ. —
G. Saubinetii affinis sed ascis, sporidiis conidiisque distinguenda.

Sect. 7. Hyalodictyæ.

PLEONECTRIA Sacc. — Syll. II p. 559, IX p. 990.

1. *Pleonectria nigropapillata* Starb. in Arkiv. för Botan. 1904, Band 2, 2827
 p. 13, f. 25-28. — Peritheciis e stromate pulvinato intus flavido-ochroleuco v. fere olivascente numerosis, erumpentibus, in cæspitulos subsparso, versiformes, 2-10 mm. long. densissime aggregatis v. subsolitariis, sphæroideis, conico-papillatis, testaceo-melleis vel avellanaceo-umbrinis, primo pallide furfuraceis demum nigricantibus rugosiusculis 250-300 μ . diam., vertice semper nigro; contextu trans lucem ferrugineo-fulvescente; ascis clavatis, apice rotundatis, breve pedicellatis, 60-75 \times 12-19, octosporis, filiformi-paraphysatis; sporidiis di-monostichis vel conglobatis, initio grumosis dein muriformi-septatis, ex hyalino flavidulis, ellipsoideis v. ovoideis, subinde anguloso-sphæroideis v. elongatis, ad septa vix v. leniter constrictis, 12-15 \times 5-7,5.

Hab. ad cortices, San Antonio prope Asuncion, Paraguay. —
Pleon. denigratæ affinis.

2. *Pleonectria coffeicola* A. Zimm. Centralbl. f. Bakter. Abt. 1902, 2828
 VIII, p. 183. — Peritheciis superficialibus in stromate tenui, subhyalino sessilibus, globosis, papillatis, brunneolis, $\frac{1}{2}$ mm. diam.; ascis 8-sporis, crassis; sporidiis falciformibus, utrinque obtusis, hyalinis, circ. 20-septatis parceque muriformibus, ad septa con-

strictulis $100 \approx 12$, articulis sæpe inæqualiter latis, non raro quibusdam secedentibus.

Hab. in foliis vivis Coffeæ libericæ, Buitenzorg Javæ.

MEGALONECTRIA Speg. — Syll. II p. 560, IX p. 992, XVI p. 599.

1. **Megalonectria pseudotrichia** (Schwein.) Speg. — Syll. II, p. 560. — 2929

var. *australiensis* P. Henn. in Hedw. 1903, pag. (79). — Ascis conspicue angustioribus nempe 12-17 μ . cr.; sporidiis minoribus, 14-20 \approx 7-10, 3-5-septato-muriformibus, ellipsoideis vel perfecte maturis fusoides. Cetera eadem.

Hab. in truncis emortuis in silvis Cairus, N. Queensland Australiæ (PRITZEL).

Sect. 8. Phæodictyæ.

FERACIA Roll. Bull. Soc. Mycol. 1905, p. 28 (Etym. *ferax* ob ascos multisporos). — Perithecia erumpenti-superficialia, sparsa v. gregaria, membranacea (atro-viridia) ostiolo prædita. Asci clavati, paraphysati, poly-(24)-spori. Sporidia ellipsoideo-oblonga, 3-pluriseptato-muriformia, colorata. — Ob perithecia madore mollia et atro-viridia genus videtur Hypocreaceis adscribendum. In tab. comp. (vol. XIV, p. 25) casulam 219 inter Hypocreaceas occupabit.

1. **Feracia balearica** Roll. l. c. tab. 2, fig. 1. — Peritheciis minutissimis, globulosis, atro-viridibus, nitidis, 130-150 μ . diam., ostiolo aperto vix prominulo instructis, celluloso-membranaceis, per fibras lignosas erumpentibus, e madore mollibus, siccis fragilibus, e mycelio brunneolo septatis enatis; ascis crebris fusoides v. clavato-oblongis, breve stipitatis, 40-50 \approx 10-14, paraphysibus plus minus ramosis, filiformibus, hyalinis obvallatis, 24-sporis; sporidiis inordinate polystichis, ellipsoideo-oblongis utrinque rotundatis, e viridi-glauco fuscidulis, 10 \approx 4, 3-septatis, non constrictis, 1-2 longitrosum v. oblique partitis. 2830

Hab. in ramis emortuis denudatis Buxi balearicæ, Como Negra, Soller ins. Balearium.

Sect. 9. Scolecosporæ.

OPHIONECTRIA Sacc. — Syll. II p. 563, IX p. 994, XI p. 365, XIV p. 651, XVI p. 601.

1. **Ophionectria hyphicola** P. Henn. Fungi blumenavienses II, in Hedw. 2831
1902, p. 7. — Peritheciis sparsis v. aggregatis, ovoideis; hyphis fusciculatis, septatis ramosis 3,5-7 μ . cr. circumdatis, apice subpapillatis dein collabentibus, luteo-brunneis, levibus, ca. 200-300 \times 180-230 μ . diam.; ascis oblonge clavatis vel subfusoides, apice obtusiusculis, octosporis, 90-120 \times 10-13; sporidiis filiformibus utrinque acutiusculis, flexuosis, pluri-septatis 70-80 \times 3,5 hyalinis.

Hab. in ligno quercino emortuo, St. Catharina Brasiliæ austr.

2. **Ophionectria Theobromæ** Pat. in Duss, Enum. Champ. Guadel. 2832
1903, pag. 81. — Peritheciis in subiculo mycelico superficiali rufo sitis, ovoideo-oblongis, erectis, vertice truncatis, 360 \times 260, coccineis, rugulosis; ascis 180 \times 25; sporidiis attenuato-fusoides 160 \times 6, incoloribus, 5-6-septatis.

Hab. in cortice putri Theobromæ Cacao, Honôlmont Guadalupe (Duss).

3. **Ophionectria belonospora** (Schroet.) Sacc. — Syll. XI, p. 365. — 2833
var. *unicaudata* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 308, ut *Calonectria*. — A typo differt sporidiis 33-50 \times 3-4,5, rarius 80 \times 6, basi longe appendiculiformi-tenuatis.

Hab. in caulibus emortuis Clematidis Vitalbæ, Luxemburg.

4. **Ophionectria follicola** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2834
p. 182. — Peritheciis in superficie mycelii tenuissimi sessilibus, applanatis, papillatis, cinnamomeis, glabris, 200-250 μ . lat., 150 μ . alt.; ascis octosporis 120 μ . long.; sporidiis fasciculatis rectis vel curvulis, c. 18-cellularibus, 100 \times 5, hyalinis, cellulis extimis minutis.

Hab. in foliis vivis Coffeæ libericæ, Buitenzorg Javæ.

TORRUBIELLA Boud. — Syll. IX p. 994, XI p. 365.

1. **Torrubiella rostrata** P. Henn. in Hedw. 1902, p. 167. — Mycelio 2835
effuso, crustaceo, albido; peritheciis gregariis interdum confluentibus v. sparsis, subsessilibus v. stipitatis ovoideis v. subpiriformibus, 400-500 μ . diam., pallidis, pilis simplicibus v. ramosis hyalinis 30-100 \times 3-4, intus guttulatis, obtusis vestitis, apice 1-3 subulato-rostratis, rostro ca. 0,5-5 mm. longo, basi ca. 100 μ . cr., apice subgloboso, sæpe recurvato ca. 140 μ . cr., sursum conidiophoris ovoideis apiculatis tectis; conidiis ellipsoideis 3,5 \times 3, flavidulis; ascis cylindræis, apice obtuso-rotundatis, tunicatis 4-8-sporis, ca. 300 \times 4-4,5; sporidiis longitudine asci, filiformibus, hyalinis, dense guttulatis v. septulatis, ca. 1 μ . cr.

Hab. in Noctua, Surinam Americæ.

2. *Torrubiella luteo-rostrata* A. Zimm., Centralbl. f. Bakter. u. Paras. 2836 II, Abth. VII, 1901, p. 872. — Stromate explanato, subcirculari, 6 mm. diam., intus brunneo-rubescens, extus albo, tenui-tunicato; peritheciis numerosis supra stroma plerumque aggregatis, rostellatis, rectis v. curvulis, 0,4-0,8 mm. long., basi 150 μ . lat., sanguineis, apice flavis, filamentis mycelicis rubescentibus consperso-asperulis; ascis filiformibus, 400 \approx 4, 8-sporis, apice crasse tunicatis; sporidiis in asco spiraliter convolutis, 1 μ . cr., ut videtur, continuis nec in articulos secedentibus.

Hab. in Coccide quodam in silvis pr. Buitenzorg Javæ. — Affinis *Torr. rubræ*, a qua peritheciis in quoque stromate numerosis et luteo-rostratis distinguitur.

HYPOCRELLA Sacc. — Syll. II p. 579, IX p. 1002, XI p. 367, XIV p. 653, XVI p. 603.

1. *Hypocrella Zimmermanniana* P. Henn. F. javanici novi, in Hedw. 2837 1902, p. 142. — Stromatibus rotundato-pulvinatis, applanatis, substipitatis 2-2,5 mm. diam., ochraceo-viridulis v. rufo-brunneis, papillato-ostiolatis, basi attenuato-substipitatis; peritheciis immersis, subglobosis; ascis clavato-fusoideis, apice obtusiusculis, 70-100 \approx 4-5,5; sporidiis filiformibus pluriseptatis, 60-80 \approx 1,5 hyalinis.

Hab. in foliis Zingiberacearum, Depok Javæ.

2. *Hypocrella Sloaneæ* Pat. in Duss, Enum. Champ. Guadal. 1903, 2838 p. 80. — Stromate ochraceo-albido, hemisphærico, 2-5 mm. diam., peritheciis ovoideis, concoloribus, exsertis tecto, ostiolis brunneolis; ascis longissimis, 12-15 μ . cr.; sporidiis linearibus, mox in articulos incolores, fusoideos, 9-12 \approx 2-3 dilabentibus.

Hab. in pag. inf. foliorum *Sloaneæ* spec. in silva Bains-Jaunes Guadalupa.

3. *Hypocrella juruana* P. Henn. Fungi Amaz. IV, in Hedw. 1905, 2839 p. 61. — Stromatibus phyllogenis, hypophyllis, sparsis vel subaggregatis, subdiscoideo-pulvinatis, convexis v. applanatis, corneis, rufo-brunneis 1-2 mm. diam., superne granulato-ostiolatis, subiculo nullo, intus pallidis; peritheciis omnino immersis, oblongis; ascis cylindræis, apice rotundato-tunicatis, 1-subsulcatis, basi attenuatis, curvulis ca. 150-200 \approx 4-5; sporidiis filiformibus, guttulatis, hyalinis, longitudine ascorum, ca. 1 μ . crassis.

Hab. in foliis coriaceis, putrescentibus, Rio Juruá Brasilæ.

4. *Hypocrella amazonica* P. Henn. Fungi Amaz. II, p. 246. — Stro- 2840 matibus molle ceraceis hypophyllis sparsis vel aggregatis, rotun-

dato-pulvinatis, pallide isabellinis, verrucoso-tuberculatis, obscure ostiolatis, ca. 1-3 mm. diam.; peritheciis immersis, oblonge ovoideis vel lageniformibus; ascis cylindraceo-subfusoides v. clavatis apice rotundato-capitulatis, $140-200 \approx 4-5 \frac{1}{2}$; sporidiis filiformibus, parallelis pluriseptatis, cellulis $4-5 \approx 1$, vix dilabentibus.

Hab. in foliis Sterculiaceæ cujusdam, Iquitos Perù. — Nonnullis notis ad *Möllerellam flavam* accedit.

5. *Hypocrella marginalis* P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. — 2841

Stromatibus marginiculis, hemisphaerico-pulvinatis v. subglobosis, castaneis, 0,5-1 mm. diam., ambitu albido byssinis, corneis, levibus; peritheciis immersis; ascis cylindraceis, apice obtuso rotundatis, octosporis, $90-130 \approx 8-10$; sporidiis parallelis, filiformibus, pluriseptatis $70-90 \approx 2,5$, cyanescentibus, cellulis vix dehiscens, oblonge cuboideis $2,5-4 \approx 2,5$.

Hab. in foliis Garciniæ spec., Ost-Usambara Africae orient. (ENGLER).

6. *Hypocrella rubiginosa* Annie L. Smith, Journ. Linn. Soc. XXXV, 2842

pag. 18, tab. III, f. 11-14 (extr.). — Syll. XVI, pag. 1141 (nomen). — Stromate pulvinato, rubiginoso, circa 5 mm. lato, basi late affixo, rugoso, peritheciis prominulis multi-punctato; peritheciis elongatis, angustatis, circa 1 mm. longis, 250μ . latis, basi rotundatis, deorsum attenuatis, ostiolum versus attenuatis; ascis octosporis, apice rotundatis, deorsum attenuatis $500 \approx 8$; sporidiis filiformibus, leviter curvulis v. rectis fere ascis æquilongis, pluriseptatis, hyalinis.

Hab. ad vetustum specimen Hypoxyli, in insula Dominica Indiæ occid.

7. *Hypocrella Raciborskii* A. Zimm. Centr. f. Bakter. u. Paras. 1901, 2843

II, Abth. p. 875, fig. 4. — Stromate libero, disciformi, carnoso, 5 mm. diam., albo v. pallide flavo, centro valde incrassato partim conidiophoro, *Aschersoniæ* speciem sistente; conidiis fusoides homogeneis vel guttulatis, $11-13 \approx 1,5-2$, paraphysibus prælongis intermixtis; peritheciis in quoque stromate numerosis (50 et ultra) omnino immersis; ascis longe cylindraceis apice incrassatis, 8-sporis, $220 \approx 10$; sporidiis filiformibus ascum æquantibus, 2 p. cr., parallelis sæpe contortis, in articulos, ut videtur, non dilabentibus; paraphysibus nullis.

Hab. parasitice in Coccide quodam ad folia Citri ad pedem M. Merapi in ins. Java (RACIBORSKI).

ECHINODOTHIS Atkins. Bull. Torrey bot. Club 1894, p. 224: cfr. Sacc. Syll. XIV p. 686, n. 2626 (Etym. *cchinus* erinaceus et *dothis* pro Dothidea). — Stroma subcarnosum, læte coloratum, tuberculiforme vel disciforme; perithecia omnino in stromate superficialia, subcylindracea et hinc faciem echinulatam reddentia. Asci cylindracei octospori; sporidia filiformia, septata, subhyalina.

1. **Echinodothis tuberiformis** (B. et R.) Atkins. l. c. et Bot. Gaz. 1891, p. 281, tab. XXV, sub *Hypocrella*. — Ita vocanda *Hypocrea tuberiformis* B. et R. — Syll. II, p. 534 et XI, p. 367.
2. **Echinodothis Gaduæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 2844 p. 61, c. ic. — Stromatibus culmicolis carnosus v. ceraceis, firmis, subtuberosus, rugoso-tuberculatis ca. 1 cm. longis, 5-7 mm. crassis, pallide fuscidulis; peritheciis liberis breve cylindraceis, apice rotundatis, papillatis, flavidis vel succineis 0,3-8 mm. longis, 0,2-0,3 mm. crassis; ascis cylindraceis, apice capitellato-incrassatis, ad basim paullo attenuatis, 8-sporis, 180-220 \times 5-6; sporidiis filiformibus pluriseptatis, hyalinis, longitudine ascorum, ca. 3-3 $\frac{1}{2}$ μ . crassis.

Hab. in culmis tenuibus *Gaduæ* sp., Rio Juruá, Juruá-Miry Amazoniæ. — Affinis *Ech. tuberiformi*. Ab *Hypocrella* peritheciis omnino liberis diversa.

ASCOPOLYPORUS A. Möll. — Syll. XVI p. 605.

1. **Ascopolyporus Gollmerianus** P. Henn. Fungi blumenavienses II, 2845 in Hedw. 1902, p. 8. — Stromatibus corneis duris, subglobosis v. subhemisphaericis, primo pallidis, superne sterilibus rotundatis, dein cremaceis subtomentosis, postice interdum plicato-sulcatis, inferne fertilibus applanatis v. concavis, pallidis dein subfuscidulis, marginatis, punctato-poroideis, ca. 1-2,5 cm. diam., intus pallidis, subconcentrice brunneo-zonatis pro parte cavernosis; peritheciis immersis, subovoideis apertis ca. 0,5 mm. longis; ascis cylindraceo-clavatis, apice rotundatis, basi paullo attenuatis 150-200 \times 5, octosporis; paraphysibus filiformibus, hyalinis, ca. 2 μ . cr.; sporidiis filiformibus, parallelis, longitudine asci, septatis dein in cellulas 4 μ . longis, 0,6-1 μ . cr., secedentibus, hyalinis.

Hab. in parvulis culmis *Bambusarum*, Venezuela Amer. austr.

FLEISCHERIA Penz. et Sacc. in Malp. 1901, p. 230 (Etym. a cl. viro MAX FLEISCHER, muscorum præprimis aliarumque cryptogamarum

sollerti scrutatore). — Stroma tuberoso-sphæroideum, biogenum, majusculum, basi applanata sessile, mox sclerotiaceo-corneum, durum. Perithecia omnino immersa, globoso-piriformia, ostiolo papillato vix emergente. Asci tereti-elongati, aparaphysati. Sporidia polysticha, filiformia, hyalina, mox in articulos bacillares utrinque obtusos dilabentia. — Genus insigne ab *Hypocrella*, *Möllerella* et *Ascopolyporo* stromate mox indurato, sclerotiaceo-corneo distinguendum.

1. **Fleischeria javanica** Penz. et Sacc. l. c. et Icon. fung. Jav. t. XL, 2846 f. 2. — Stromatibus laxè gregariis verrucosis, glabris, totis rufo-brunneis, 8-10 mm. altis et lat., basi planis punctoque centrali umbilicato, matrici affixis; peritheciis remotiusculis, piriformibus 350-380 μ . diam., in collum breve ostiolumque papillatum parum emergens productis, tenui-membranaceis; ascis anguste fusoides, apice obtuse tenuatis, deorsum crasse sensim stipitatis, 140-150 \times 7, aparaphysatis; sporidiis polystichis, initio filiformibus mox in articulos bacillares, numerosissimos, rectos, utrinque rotundatos 14-15 \times 1,7-2, hyalinos dilabentibus.

Hab. ad ramos adhuc vivos arboris indeterminatæ, Tjibodas, Java (M. FLEISCHER). — Stromata matrice avulsa relinquunt arcolam albidam cum cicatricula centrali.

CLAVICEPS Tul. — Syll. II p. 564, IX p. 998, XVI p. 609.

1. **Claviceps cinerea** D. Griff. in Bull. Torr. Bot. Cl. 1901, XXVIII, 2817 pag. 240, fig. 1-2. — Sclerotio clavato, superne conico, erecto v. curvato vel contorto, 1,5-3 cm. longo, basi 1,75-2,5 mm. diam., viscido, in glumis permanente, levi, lucenti, nigro, reticulato; stromatibus erectis, e stipite brevi, cylindrico vel anguste fusiformi, firmo fere albido ortis, subglobosis, inferne applanatis subtus excavatis, 1,75-2,75 mm. diam., sublevibus, griseo-pallidis v. cinereis, viscidulis, ab ostioliis prominulis obscurioribus punctulatis; peritheciis subpiriformibus, stipatis 190-225 \times 60-90; ascis octosporis, fasciculatis cylindræis, longe pedicellatis, superne rotundatis 135-150 \times 4-5; sporidiis parallele dispositis, filiformibus guttulatis 100-120 \times 1-1,5.

Hab. in spicis *Hilarie* muticæ et *H. conchroidis*, Cochise, Arizona Amer. bor.

2. **Claviceps? caricina** Griffiths, Bull. of the Torr. Bot. Club 1902, 2818 p. 300. — Mycelio in parte centrali culmorum evoluto sclerotia longitudinaliter striata, nigra 1,5-5 cm. long., 1,5-5 mm. cr. effor-

mante; sclerotiis intus albidis; contextu æqualiter denso ex hyphis subseptatis, hyalinis intricatis, crasse tunicatis composito; statu aschophoro ignoto.

Hab. in culmis Caricis nebraskensis, Andrews, Oregon Amer. bor. (GRIFFITHS et MORRIS). — In parte super. culmorum adsunt sori elongati nigro-erumpentes (structura *Glaeosporii*, teste auctore), conidiis globosis, hyalinis 1-2 μ . diam.

BALANSIA Speg. — Syll. IX p. 997, XI p. 366, XIV p. 656, XVI pag. 607. — Observante cl. Hennings, genus potius *Dothideaceis* adscribendum.

1. **Balansia chusqueicola** P. Henn. Pilz. Costaric. p. 148. — Stroma- 2849
tibus culmicolis, eos deformantibus margine tenui circumdatisque distanter insertis, subgloboso-depressis v. hemisphæricis lignoso-corneis, atris, paulo rugulosis ca. 0,5-1 cm. diam.; peritheciis omnino immersis, lageniformibus, atris, vix ostiolatis; ascis cylindraceis, apice rotundatis, 8-sporis, ca. 250-300 \times 5-7; sporidiis parallelis longitudine asci, hyalinis, pluriguttulatis vel septatis, ca. 1 $\frac{1}{2}$ -2 μ . crassis; contextu atro, duro, corneo.

Hab. in culmis udis Chusqueæ sp. Barba-Vulkan Costarica (C. HOFFMANN). — *B. regulari* subaffinis.

2. **Balansia asclerotiaca** P. Henn. Fungi Amaz. II, p. 259, cum icone. 2850
— Stromatibus culmicolis, caespitose erumpentibus, matrice haud sclerotiaca, incrassata nigrificata, sessilibus vel stipitatis, stipite usque ad 2 $\frac{1}{2}$ mm. longo, 0,3 mm. crasso, tereti, pallide fusco, pruinoso striatulo; capitulis subglobosis, interdum confluentibus, atris, dense verrucoso-ostiolatis, ca. 1 mm. diam.; peritheciis immersis, subovoideis vel lageniformibus; ascis cylindraceis apice attenuatis, subhemisphærico-incrassatis, 1-sulcatulis, ad basin attenuatis, 8-sporis, 150-220 \times 3 $\frac{1}{2}$ -4; sporidiis parallelis, longitudine asci, pluriguttulatis vel obsolete septulatis, filiformibus, hyalinis, ca. 0,6-0,8 μ . crassis.

Hab. in culmis Orthocladæ ramifloræ, Jurua-Miry, Rio Jurua Amazoniæ. — A ceteris speciebus præsentia sclerotii mox dignoscitur.

BALANSIELLA P. Henn. in Hedw. 1904, p. 85 (Etym. a *Balansia*, cui affinis). — Stromata stipitato-capitata, pallida, ceraceo-carnosa, e sclerotio plantæ virescentis oriunda. Perithecia stromate immersa subprominula. Asci cylindracei. Sporidia filiformia, septata.

— A gen. *Balansia* præcipue stromate ceraceo carnoso, biogeno nec carbonaceo-corneo mox dignoscenda.

1. *Balansiella Orthocladæ* P. Henn. l. c. *Claviceps pallida* (Wint.) var. *Orthocladæ* P. Henn. in Hedw. 1900, p. 77. — Syll. XVI, p. 610, *Balansia diadema* A. Möll. Ascom. 1901, p. 197. — Syll. XVI, p. 608.

CORDYCEPS Fr. — Syll. II p. 566, IX p. 998, XI p. 366, XIV p. 656, XVI p. 611. — Cfr. Penz. et Sacc. Icon. fung. Jav. t. XXXVIII-XL.

I. *Eu-Cordyceps*.

1. *Cordyceps subpolyarthra* P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 11. — Stromatibus clavatis v. capitulatis 4-12 mm. longis, coccineis, stipite tereti, 0,2-0,4 mm. cr., capitulis subglobosis 1 mm. diam. v. clavatis ca. 3 × 1 mm. diam.; peritheciis liberis, conoideis, apiculatis ca. 300-400 × 100-130; ascis cylindraceis apice rotundato-capitatis 180-200 × 3; sporidiis filiformibus, pluriguttulatis vel obsolete septatis ca. 0,7 μ . crassis.

Hab. in foliis Musacearum, St. Catharina Brasiliæ austr.

2. *Cordyceps Fleischeri* Penz. et Sacc. in Malpighia 1901 p. 230, et Ic. fung. Javan. t. XXXIX, f. 4. — Clavato-cylindracea; clava teretiuscula, subæquali, 10-12 mm. longa, 2-3 mm. cr., vivide coccinea, apice longiuscule mucronata, basi a stipite discreta, carnosa, glabra, ostiolis minutissimis asperula, stipite tenuiter cylindraceo, glabro, brunneo, 5-7 cm. longo, 1-1,5 mm. cr.; peritheciis horizontaliter immersis, crebris, elliptico-oblongis, in ostiola punctiformia mox abeuntibus, 380-400 × 110; ascis cylindraceis, prælongis, subsessilibus apice globoso-inflatulis, apophysatis, 170-180 × 6, 5-7, octosporis; sporidiis filiformibus, rectiusculis, utrinque obtusulis, multi (18-22)-septatis, 150 × 1,5 hyalinis, articulis 4-4,5 × 1,5.

Hab. in larvis insectorum, Tjibodas, in insula Java (M. FLEISCHER). — Affinis videtur *C. Barnesii* et *C. Thwaitesii*, sed differt clava coccinea, nec vix rubescente, ostiolis minus prominulis, stipite brunneo etc.

3. *Cordyceps cæspitoso-filiformis* P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 11. — Stromatibus cæspitosis, filiformibus, simplicibus v. furcatis, coccineis, apice acutiusculus usque ad 3 cm. longis, 0,5-0,8 mm. cr., flexuosis; peritheciis interrupte gregariis, omnino liberis, ovoideis v. subconoideis, apice obtusiusculis, coc-

cineis vel rufis ca. 300 μ . longis et 200 ca. μ . latis; ascis cylindraceis apice rotundato-capitatis, flexuosis octosporis 150-200 \times 4-6; sporidiis longitudinaliter conglobatis, pluriguttulatis, hyalinis ca. 1 μ . crassis.

Hab. in larvis, St. Catharina Brasilæ austr.

4. **Cordyceps coccinea** Penz. et Sacc. — Syll. XIV, p. 656. — var. 2854
subochracea Penz. et Sacc. in Malpighia 1901, p. 231. — A typo videtur satis differre peritheciis ex clavula magis emergentibus, stipite paullo brevior, nempe vix 45 mm. longo, colore fungi ochraceo-flavido, nec coccineo prætereaque habitatione.

Hab. in larva quadam Lepidopteri hirsuta, Tjibodas, in insula Java (M. FLEISCHER).

5. **Cordyceps tarapotensis** P. Henn. Fungi Amaz. II, pag. 246. — 2855
 Mycelio submembranaceo, effuso, pallido; stromatibus aggregatis v. sparsis, basi interdum fasciculatis, erectis subulatis, 10-16 mm. longis, stipite basi incrassatis, cylindraceo, flavido; clavula ca. 5 mm. longa, 1-1½ mm. crassa, peritheciis aggregatis omnino liberis, oblongis, ovoideis, apice obscuris, rotundatis, brunneis, 300-350 \times 180-200 μ .; ascis cylindraceo-clavatis, apice subglobuloso depressis sulcatis, 8-sporis, 230-280 \times 4-6; sporidiis parallelis filiformibus, pluriseptatis, dilabentibus; cellulis subcuboideis, hyalinis ca. 4.5 \times 0.8.

Hab. in corpore Bombycinæ sp. Tarapoto, Perú. — *C. isarioidi* et *C. Englerianæ* affinis.

6. **Cordyceps amazonica** P. Henn. Fungi Amaz. II, p. 247, fig. 4. — 2856
 Stromatibus singularibus, stipitato-erectis, 2½-3 cm. longis, stipite tereti ca. 2-2½ cm. longo, 1 mm. crasso, æquali, pallido vel brunneolo, clavula subglobosa 2½-3 mm. diam., coccineo-fuscula; peritheciis omnino immersis, ovoideis, punctoideo-ostiolatis; ascis cylindraceo-subclavatis, rotundato-capitatis, sulcatis, ca. 130-150 \times 3½-4; sporidiis filiformibus, parallelis, pluriseptatis; cellulis ca. 10 \times 0.5-0.7; conidiis stromate eodem, conidiophoris filiformibus hyalinis ca. 10 μ . longis; conidiis catenulatis, globosis, hyalinis, ca. 1½ μ .

Hab. in Locusta spec. Juruá-Miry Brasilæ.

7. **Cordyceps Michaëlisii** Henn. in Hedw. 1902, p. 169. — Stroma- 2857
 tibus plerumque cespitose gregariis, subclavatis 7-18 mm. longis, pallidis; stipite subtereti brevi v. plus minus elongato, levi 0.5-1 cm. longo, 1.5-2 mm. cr.; clavula oblonge ellipsoidea v. subglobosa, interdum compressa, pallida, 2-8 \times 2-7 mm. diam., brunneolo-punctata, ostiolata; peritheciis subimmersis, ovoideis 200 \times 120 μ .;

ascis cylindraceutis, flexuosis, apice rotundato-tunicatis, basi paullo attenuatis $160-200 \approx 2,5-3 \mu$.; sporidiis longitudine asci, filiformibus, pluriguttulatis v. obsolete septulatis $0,6-0,8 \mu$. cr.

Hab. in chrysalidibus Bombycis, foliis circumdatis, Surinam America merid.

8. *Cordyceps subcorticicola* P. Henn. Fungi blumenavienses II, in 2853

Hedw. 1902, pag. 11. — Ascomatibus stipitatis, capitatis; stipite compresso, sulcatato, flexuoso, pallido ca. 1 cm. longo, 1-1,5 mm. cr., apice subfurcato vel simplici; capitulis hemisphaericopulvinatis v. subgloboso-depressis 1,5-2 mm. diam., flavo-coccineis; peritheciis ad marginem subliberis, ovoideis v. subulatis ca. $500-600 \approx 200 \mu$. diam., vertice semiimmersis, apiculatis; ascis cylindraceutis, apice rotundato-capitulatis, basi attenuatis ca. $220-280 \approx 3$ octosporis; sporidiis filiformibus guttulatis vel septulatis ca. $0,5 \mu$. crass.

Hab. in larvis emortuis in corticibus arborum, St. Catharina Brasiliae austr.

9. *Cordyceps Uleana* P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2859

fig. 5. — Stromatibus sparsis vel caespitosis, stipitato-globulosis, aurantiis, ca. 6-8 mm. altis, stipite tereti v. compresso 2-3 mm. longo, 1-2 mm. crasso; clavulis subglobosis interdum botryosocongestis, 3-5 mm. diam., ruguloso-verrucosis; peritheciis subimmersis oblonge ovoideis $300-350 \approx 200-250$, ostiolis rotundatis; ascis cylindraceuto-clavatis, apice obtuse rotundatis sulcatulis, basi attenuatis, $250-300 \approx 4\frac{1}{2}-5$; sporidiis parallelis filiformibus, pluriseptatis, cellulis 2-3 $\approx 0,6-0,8$ dilabentibus.

Hab. in Locustidæ spec., Cerro de Escaler Perù. — *C. Corallomyceti* proxime affinis.

10. *Cordyceps locustiphila* P. Henn. Fungi Amaz. II, p. 247, tab. IV, 2860

fig. 3. — Mycelio effuso, pallido; stromatibus gregariis singularibus vel subfasciculatis, clavatis, $1-1\frac{1}{2}$ cm. longis, curvulis, stipitibus subtereti-compressis, flavidis, clavulis obtusis, ca. 0,8-12 mm. longis, $2-2\frac{1}{2}$ mm. crassis, subflavido-fusciculis; peritheciis aggregatis, immersis, ca. 150μ ., oblonge ovoideis, subhemisphaericoostiolatis; ascis cylindraceuto-clavatis apice rotundato-sulcatis, 8-sporis, ca. $150-200 \approx 3-3\frac{1}{2}$; sporidiis parallelis, filiformibus, pluriguttulatis vel pluriseptatis ca. $0,6-0,9 \mu$. crassis.

Hab. in Locusta spec. Bocca do Tejo, Rio Juruá Brasiliae. — *C. militari* affinis.

11. *Cordyceps surinamensis* P. Henn. in Hedw. 1902, p. 169. — Stro- 2861

matibus stipitato-capitulatis, ca. 8 mm. longis; stipite tereti, flavo-brunneo, levi, ca. 6 mm. longo, 0,8 mm. crasso, clavula hemisphærica vel subglobosa, superne rugulosa v. levi, flavida, ca. 2 mm. diam., ostiolis punctoideis vix conspicuis; peritheciiis immersis, ca. 200 μ . diam., ovoideis, olivaceis; ascis cylindraceutis, apice rotundatis, basi attenuatis $150 \times 3-4$; sporidiis filiformibus, pluriguttulatis haud septatis, ca. 1 μ . cr.

Hab. in thorace Ichneumonidæ, Surinam Americæ.

12. **Cordyceps subdiscoidea** P. Henn. in Hedw. 1902, p. 168. — Stro- 2862
matibus sparsis, stipitatis; capitulo convexo-subdiscoideo, appanato, flavo, ostiolis minute papillatis, obscurioribus, 1,5-2 mm. diam.; stipite tereti, flavo-brunneo, levi, æquali, ca. 4 mm. longo, 300 μ . crasso; peritheciiis immersis, ovoideis, papillatis, ca. 150 μ . diam.; ascis cylindraceutis subclavatis $100-130 \times 3$, octosporis; sporidiis filiformibus, pluriguttulatis, hyalinis, ca. 0,8 μ . crassis.

Hab. in thorace Formicæ spec., Surinam Americæ.

13. **Cordyceps miryensis** P. Henn. Fungi Amaz. II, p. 247. — Stro- 2863
matibus sparsis, clavatis, flavidis, 0,6-10 mm. longis, stipite subfiliformi, tereti, 3-5 mm. longo, clavula cylindraceuta, obtusa rotundata, ca. 3-5 mm. longo, $1-1\frac{1}{2}$ mm. crassa; peritheciiis immersis ovoideis, papillato-ostiolatis; ascis cylindraceuto-clavatis, apice globuloso-capitatis, sulcatis, $120-150 \times 3-3\frac{1}{2}$; sporidiis parallelis, filiformibus, pluriseptatis; cellulis 4-5 μ . longis, 0,5-0,7 μ . crassis.

Hab. in chrysalide Lepidopteri minuti ad folia, Juruá-Miry Rio Juruá Amazoniæ. — Proxime affinis *C. typhuliformi*.

14. **Cordyceps proliferans** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2864
fig. 6 (Hedw. 1904). — Stromatibus singularibus erectis, ca. 4 cm. altis, stipite tereti, subcorneo corticato, atro, $2-2\frac{1}{2}$ cm. longo, ca. 1 mm. crasso, æquali, clavulis subfusoides, cylindraceutis vel compressis, proliferante-furcatis, flavido-stipitatis, subrugulosis, flavidis punctulato-ostiolatis; peritheciiis ovoideis, immersis; ascis cylindraceuto-clavatis apice capitellato obtusis, sulcatulis, $150-180 \times 4-5$; sporidiis filiformibus parallelis in cellulas subfusoides, hyalino-cyaneascentes $6-8 \times 0,7-0,8$ dilabentibus.

Hab. in corpore emortuo Dinoponeræ (Formicæ) grandis, Marmellos Rio Juruá Amazoniæ. — *C. myrmecophilæ* affinis.

15. **Cordyceps joaquiensis** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2865
fig. 7. — Stromatibus cæspitosis vel singularibus, 6-8 cm. longis, cylindraceuto-fusoides, superne simplicibus vel ramosis, fusco-olivaceis, stipite carnoso, farcto, tereti, flexuoso, clavula tereti, obtusa,

ca. 1-1 $\frac{1}{2}$ cm. longa, 2 $\frac{1}{2}$ -3 mm. crassa, punctoideo-ostiolata; peritheciis omnino immersis, ovoideis v. oblongis; ascis cylindraceutis apice rotundatis incrassatis, sulcatusculis, 150-200 \approx 4-4 $\frac{1}{2}$; sporidiis filiformibus, parallelis, pluriguttulatis v. septatis, hyalino-subfuscidulis ca. 1 μ . crassis.

Hab. in larvis Coleopteris? ejusdam, Sao Joaquin Rio Negro Amazoniæ. — *C. submilitari* affinis.

16. **Cordyceps Lacroixii** Har. et Pat. Bull. Soc. Mycol. 1904, p. 65, 2866

c. icon. — Stromate erecto, simplice, usque 20 cm. alt. 4 mm. cr., rigido, glabro, subtereti, sordide fusco, superne obscuriori in partem peritheciigeram apice obtuse tenuatam 2-5 cm. longam, in sicco atram, levissimam, regulariter linguiformi-dilatato (6 mm.); peritheciis omnino immersis, confertis; ascis sporidiisque generis.

Hab. in larvis Lepidopteri ejusdam in Japonia (Comm. LACROIX). — Affinis *Cord. Huegelii*, sed clavula atra omnino levis.

17. **Cordyceps subunilateralis** Henn. in Hedw. 1902, p. 168. — Stro- 2867

mate stipitato, apice rotundato-clavato, ca. 5 mm. longo; stipite subcylindraceuto, castaneo, sursum piloso, 2-2,5 mm. longo, 400 μ . crasso; clavula subglobosa v. ovoidea, longitudinaliter sulcata, sursum verrucosa 2,5 \approx 2 mm. castanea; peritheciis subimmersis, papillato-ostiolatis, ovoideis ca. 200-250 \approx 150 μ .; ascis cylindraceuto-fusoideis, rectis vel flexuosis, utrinque attenuatis, apice capitato-rotundatis, octosporis 100-150 \approx 3,5-4; sporidiis longitudine asci, filiformibus, pluriseptatis, minute guttulatis, hyalinis, ca. 2-2,5 μ . cr.

Hab. in thorace Formicæ spec., Surinam Americæ merid.

18. **Cordyceps myosuroides** Henn. in Hedw. 1902, p. 169. — Stro- 2868

matibus clavatis, stipitatis 6-8 mm. long.; stipite filiformi-tereti, brunneo, minute pilosulo 4-5 \approx 0,4 mm.; clavula oblonge cylindraceuta, obtusa, castanea, verrucosa 2-3 \approx 0,8 mm.; peritheciis extus $\frac{2}{3}$ liberis, obliquis, rotundato-ostiolatis, ovoideis, 200-220 \approx 150-180 μ .; ascis cylindraceuto-clavatis v. subfusoideis, rectis vel flexuosis, apice rotundato tunicatis, basi attenuatis 80-120 \approx 6-8; sporidiis longitudine asci, filiformibus, pluriseptulatis, minute guttulatis, ca. 2,5 μ . cr.

Hab. in thorace Ichneumonidæ, Surinam Americæ merid.

19. **Cordyceps javensis** P. Henn. F. javanici novi, in Hedw. 1902, 2869

p. 142. — Stromatibus solitariis ex dorso larvarum, olivaceo-brunneis; stipite tereti, flexuoso, carnoso, levi, glabro, 14-18 \approx 0,8 mm.; capitulo subgloboso, verrucoso-rugoso, ca. 2 mm. diam.; peritheciis subimmersis, apice subhemisphærico-elevatis; ascis cylindra-

ceis, vertice rotundato-subcapitulatis, 140-180 \approx 3,5-4,5; sporidiis filiformibus, pluriseptatis, longitudine ascorum, articulis 3-5 \approx 0,5-0,8 hyalinis.

Hab. in larvis Lepidopterorum, S. Aroun Javæ.

20. **Cordyceps juruensis** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2870 fig. 2. — Stromatibus stipitato-clavatis, 4-8 cm. altis, cinereo-alutaceis pruinosis vel subpulverulentis dein fuscidulo-atris, stipite cylindraceo v. compresso, flexuoso 3-6 cm. longo, 1-1 $\frac{1}{2}$ cm. crasso; clavula clavata vel subspathulata subfarinacea, compressa, obtusa, 5-10 mm. longa, 3-4 mm. lata; peritheciis omnino immersis, oblonge ovoideis, punctulato-ostiolatis; ascis cylindraceo-clavatis, apice incrassato-rotundatis, 4-sporis, 200-250 \approx 5-5 $\frac{1}{2}$; sporidiis filiformibus pluriseptatis, cellulis ca. 4-5 \approx 2, hyalinis; stromate eodem conidiophoro farinaceo; conidiophoris fasciculatis, ramosis, hyalinis; conidiis catenulatis, globosis, 1-guttulatis, 2 $\frac{1}{2}$ -3 μ .

Hab. ad terram, Marary Rio Juruá Amazoniæ. — Incertum, an species zoogena v. mycogena sit. *Cord. olivaceo-virescenti* proxime affinis.

II. *Cordyliella* P. Henn. Hedw. 1904, p. 248 Stromata tentaculato-ramosa.

21. **Cordyceps Volkiana** A. Möller. Phyc. et Ascom. p. 233, t. VII, 2871 f. 98, 99, t. XI, f. 4, P. Henn. Fungi Amaz. II, pag. 248. — Syll. XVI, p. 615.

Hab. quoque in larvis Lamellicornium, Rio Juruá Amazoniæ. — Conidia tantum 4-5 \approx 1,5-2.

Fam. 4. Dothideaceæ.

Sect. 1. Hyalosporæ.

ZIMMERMANNIELLA P. Henn. F. javanici novi, in Hedw. 1902, p. 142 (Etym. a cl. mycologo et phytopathologo, prof. Alb. Zimmermann). — Stromata foliicola, innato-superficialia, subglobosa, subcornea, verrucoso-rugosa, atra. Perithecia immersa subglobosa vix ostiolata. Asci subfusoides paraphysati, 3-spori. Sporidia monosticha, oblonga continua, hyalina. *Kullhemice* Karst. affinis.

1. **Zimmermanniella trispora** P. Henn. l. c. — Stromatibus hypophyllis, sparsis vel aggregatis, superficialibus, subglobosis, subcorneis, 2872

Hedw. 1902, p. 109. — Maculis fuscidulis; stromatibus amphigenis, punctiformibus, sparsis v. nervos sequentibus, striiforme confluentibus, atris, opacis, pulvinatis, plerumque 0,5-1 mm. diam., loculis paucis immersis, ostiolatis; ascis clavatis vel subfusoides 50-70 \times 10-14, octosporis; paraphysibus copiosis, filiformibus, hyalinis ca. 2 μ . cr.; sporidiis oblique monostichis v. distichis, ellipsoideis, utrinque obtusis, intus guttulatis, hyalinis, 8-14 \times 4-4,5.

Hab. in foliis *Schizolobii excelsi*, in horto bot. S. Paulo Brasiliæ.

8. **Phyllachora Schizolobii** Rehm, Hedw. XLIV, 1905, p. 2. — Stromatibus plerumque hypophyllis, orbicularibus v. irregulariter elongatis, atris, in maculis folii parvulis, dilute ochraceis innatis, 0,5-3 mm. diam., loculis globosis 1-12 verrucose prominentibus, plus minusve discretis, poro vix conspicuo pertusis; ascis fusiformibus, 65-75 \times 12, 8-sporis; sporidiis oblongis, rectis, utrinque rotundatis, dilute luteolis, 1-cellularibus, 12-14 \times 5, distichis; paraphysibus vix conspicuis. 2881

Hab. in foliis *Schizolobii excelsi*, Minas Geraes Brasiliæ (ULE).

9. **Phyllachora Derridis** Syd. Ann. Mycol. 1904, p. 163. — Stromatibus epiphyllis; maculis fuscescentibus obsoletis indeterminatis insidentibus, laxè circulariter dispositis, rotundatis vel irregularibus, convexulis, atris, nitentibus, $\frac{1}{2}$ -1 mm. longis, plurilocularibus; ascis cylindraceo-clavatis, apice rotundatis, breviter stipitatis, 55-70 \times 12-15, octosporis; sporidiis monostichis vel rarius irregulariter subdistichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 14-16 \times 4-6. 2882

Hab. in foliis vivis *Derridis glabratae*, Angola (WELWITSCH).

10. **Phyllachora copeyensis** P. Henn. Fungi costaricensis I, in Hedw. 1902, p. 103. — Maculis atris, rotundatis; stromatibus hypophyllis v. amphigenis, rotundatis, planis, levibus, atris subnitentibus, ca. 2 mm. diam.; peritheciis subglobosis, ostiolis vix prominulis subverrucosis; ascis clavatis v. subfusoides, apice rotundatis vel subacutis, 65-70 \times 15-17, octosporis; paraphysibus filiformibus ca. 2 μ . cr. hyalinis; sporidiis oblique monostichis v. subdistichis, oblonge ellipsoideis v. ovoideis, hyalinis, intus granulatis, 20-23 \times 8-10, continuis. 2883

Hab. in foliis vivis *Swartziae spec.*, Cerros de Velirla Amer. centr.

11. *Phyllachora juruensis* P. Henn. Fungi Amaz. II, pag. 252. — 2884

Maculis fuscidulis effusis; stromatibus amphigenis sparse gregariis, angulato-pulvinatis, superne atro-nitentibus, rugulosis, interne opacis, verrucosis, 1-2 mm. diam.; peritheciis immersis, subglobosis; ascis fusoides apice subacutis, 8-sporis, 60-65 \times 10-17; paraphysibus filiformibus, 1 $\frac{1}{2}$ μ . crassis; sporidiis oblonge fusoides utrinque subacutiusculis, intus granulosis, hyalinis, oblique monostichis vel subdistichis, 20-26 \times 5-6.

Hab. in foliis Browniæ spec.? (Leguminosæ), Bom Fim Rio Jurua Amazoniæ. — Stromatibus prominentibus et sporidiis fusoides distinguenda species.

12. *Phyllachora lungusaensis* P. Henn. in Engl. Bot. Jahrb. 1903, 2885

p. 50. — Peritheciis amphigenis, sparsis vel gregariis hemisphaerico-pulvinatis, atro-nitentibus, minutis, ca. 0,2-0,3 mm. diam., levibus; peritheciis 1-4-subglobosis, immersis; ascis clavatis, interdum ovoideis, apice rotundatis 35-40 \times 10-18, octosporis; paraphysibus filiformibus; sporidiis distichis vel subtristichis, ellipsoideis, utrinque obtusis, biguttulatis hyalinis, 8-10 \times 3,5-4.

Hab. in foliis Lonchocarpi spec.?, Lungusa in Usambara Africae orient. (Engler).

13. *Phyllachora Diocleæ* P. Henn. Fungi Amaz. II, p. 252. — Ma 2886

maculis rotundatis v. effusis, brunneolis; stromatibus epiphyllis sparsis, rotundato-pulvinatis, planis, atris, granulato-verrucosis, 1 $\frac{1}{2}$ -3 mm. diam.; peritheciis immersis, ovoideis, subhemisphaerico-ostiolatis; ascis clavatis vel subfusoides, apice rotundatis, 50-60 \times 10-12; paraphysibus filiformibus, hyalinis, 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis vel distichis, oblonge clavatis vel subfusoides, 2-4-guttulatis, hyalinis, 18-22 \times 4-5.

Hab. in foliis Diocleæ spec. prope Rio Jurua Amazoniæ.

14. *Phyllachora centrolobiicola* P. Henn. Fungi Amaz. II, p. 251. — 2887

Maculis rotundatis vel effusis, fuscidulis; stromatibus epiphyllis gregariis vel sparsis rotundato-pulvinatis, atro-nitentibus, subrugulosis, 1-2 mm. diam.; peritheciis immersis ovoideis; ascis clavatis, obtusis vel subacutiusculis, 8-sporis, 80-90 \times 14-20; paraphysibus filiformibus, hyalinis, 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, ovoideis vel fusoides intus granulatis, obtusis, hyalinis, 12-20 \times 8-10; stromatibus conidiophoris æqualibus, conidiis subglobosis vel ovoideis, 1-guttulatis, 6-8 μ ., atris (*Haplosporella centrolobiicola* P. Henn.).

Hab. in foliis *Centrolobii* spec, Tarapoto, Perú. — A *Ph.*

Centrolobii habitu et sporidiis distichis fusoides diversa.

15. *Phyllachora mexicana* Ture., Un fungo parass. sulla Chaquirilla, 2898
p. 29 (Atti Ist. bot. Pavia Majo 1904, vol. X), *Phyll. Adolphie* Ell.
et Kell. Journ. of Mycol. Sept. 1904, p. 232 c. iconib. — Stromatibus numerosis, dense gregariis, rarius confluentibus, subrotundis v. elliptico-elongatis, prominulo-applanatis v. leniter convexis, levibus, atro-piceis, minutis, 1-2 mm. diam., denique longitudinaliter fissis, 2-4-locularibus; loculis globoso-depressis v. lenticularibus; ascis cylindraceis 80-110 \times 12-15, superne rotundatis, inferne brevissime et spurie attenuato-pedicellatis, paraphysatis, octosporis; sporidiis oblique monostichis, rarius subdistichis, ovato-ellipsoideis, utrinque rotundatis, hyalinis, 11-15 \times 6,5-8, intus granulosi.

Hab. in ramulis vivis *Adolphie* infestæ (*Chaquirilla*), Mexico (A. L. HERRERA). — Socium adest pycnidium: *Cytosporina Adolphie* Ture. — Test. Ell. et Kell. l. c. adsunt paraphyses bacillares, 2-3,5 μ . crass. et sporidia sunt 12-15 \times 8-10.

16. *Phyllachora pusilla* Syd. Ann. Mycol. 1904, p. 163. — Stromatibus 2899
epiphyllis, sparsis, minutissimis, punctiformibus, ca. $\frac{1}{3}$ - $\frac{1}{2}$ mm. diam., atris, subnitentibus, 1- vel paucilocularibus; ascis cylindraceis v. cylindraceo-clavatis, apice rotundatis, breviter stipitatis, 70-105 \times 11-21, octosporis; sporidiis monostichis vel subdistichis, ellipsoideis, utrinque rotundatis, intus guttulatis, continuis, hyalinis, 11 $\frac{1}{2}$ -17 \times 7-10; paraphysibus filiformibus.

Hab. in foliis vivis *Pavoniae Schrankii* in Brasilia (SELLO).

17. *Phyllachora minuta* P. Henn. F. javanici novi, in Hedw. 1902, 2890
pag. 143. — Maculis rotundatis, fuscis; stromatibus amphigenis, sparsis, minutis, pulvinatis, atro-nitentibus, 0,5-1 mm. diam., levibus, glabris; peritheciis 1-2 subglobosis; ascis clavatis apice obtusis, octosporis, 80-110 \times 15-18; paraphysibus filiformibus, hyalinis 1-1,5 μ . cr.; sporidiis subdistichis v. oblique monostichis, ellipsoideis v. ovoideis, intus nebulosis, 13-18 \times 7-8, hyalinis, continuis.

Hab. in foliis *Hibisci* spec. Buitenzorg Javæ.

18. *Phyllachora macrospora* A. Zimm. in Centralbl. f. Bakter. 1902, 2891
VIII, p. 183. — Stromatibus orbicularibus, atro-brunneis nigrisve, margine obscuriore leviter curvatis, parenchyma folii penetrantibus, sæpe hinc inde dense gregariis, 1-1,5 mm. diam.; loculis 1-3 in epiphyllis dehiscentibus; ascis obtusatis, 8-sporis, 140 μ . longis, filiformi-paraphysatis; sporidiis oblongis utrinque obtusis, hyalinis, dein brunneolis, extus verruculosis, 35-40 \times 8.

Hab. frequens in foliis Durionis zibethini circa Buitenzorg Javæ.

19. **Phyllachora Ocoteæ** P. Henn. in Hedw. 1904, p. 86. — Maculis 2892
obsoletis vel flavidulis; stromatibus epiphyllis sparse gregariis, innatis, subdiscoideo-applanatis vel convexis, rotundatis, atro-nitentibus 0,3-0,4 mm. diam.; peritheciis immersis vix prominulis; ascis clavatis, interdum substipitatis, apice rotundatis, octosporis, 60-80 \times 12-20; paraphysibus copiosis, filiformibus, septatis, subramosis, hyalinis ca. 2 μ . crassis; sporidiis oblique monostichis v. subdistichis, ellipsoideis vel subovoideis, hyalinis, 10-15 \times 7-8.

Hab. in foliis Ocoteæ spec., Cabo Frio, Rio de Janeiro Brasilie (E. ULE).

20. **Phyllachora opposita** P. Henn. Fungi Amaz. II, p. 252. — Ma- 2893
culis rotundatis, fuscidulis; stromatibus innatis, opposito-amphigenis, subrotundato-dispositis, plano-pulvinatis, atro-opacis vel subnitentibus, minute ostiolatis, ca. 0,7-1,0 mm. diam.; peritheciis immersis, globosis; ascis fusoideis vel subclavatis, apice subobtusorotundatis, stipitatis, 100-130 μ . longis, p. sp. 80-100 \times 10-12; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis, oblonge fusoideis, utrinque subacutis vel rotundatis, hyalinis, guttulatis, 14-17 \times 5.

Hab. in foliis Lauraceæ cujusdam, Rio Jurua Amazoniæ.

21. **Phyllachora socia** P. Henn. Fungi Amaz. II, p. 253. — Maculis 2894
rotundatis, fuscis; stromatibus subcirculariter dispositis epiphyllis, innato-erumpentibus, rotundato vel oblonge pulvinatis, atro-nitentibus, 7-10 mm. diam.; peritheciis immersis, globosis, atris; ascis subfusoideis vel subclavatis, apice rotundato-obtusis, stipitatis, 140-200 \times 18-30; paraphysibus filiformibus, 3-4 μ . crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis, crasse tunicatis, intus guttulatis, hyalinis, 20-30 \times 13-15.

Hab. in foliis Lauraceæ cujusdam, intermixta Phæangella socia P. Henn., Cerro de Escaler, Perù.

22. **Phyllachora madeirensis** P. Henn. Fungi Amaz. III, 1904, p. 368. 2895
— Maculis subrotundatis, fuscidulis; stromatibus epiphyllis, gregariis, minutis ca. 250 μ ., subhemisphæricis ostiolatis, atro-nitentibus; peritheciis paucis, subglobosis; ascis clavatis vel subfusoideis, rotundatis, 8-sporis, paraphysatis, 50-60 \times 8-12; sporidiis oblique monostichis vel distichis oblonge fusoideis vel clavatis, obtusis, hyalinis 12-16 \times 5-6.

Hab. in foliis Lauraceæ cujusdam Marmellos Rio Madeira Amazoniæ.

23. *Phyllachora huallagensis* P. Henn. Fungi Amaz. III, 1904, p. 368. 2896

— Maculis rotundatis, subinflatis, pallide fuscis, exaridis; stromatibus amphigenis, subconcentrice dispositis, sublenticulari-planis, atris opacis; peritheciis immersis, subglobosis; ascis clavatis, obtuse rotundatis, 8-sporis, paraphysatis, $50-80 \times 12-15$; sporidiis oblique monostichis vel subdistichis, fusoides vel ovoideis, intus granulatis, hyalinis, $12-15 \times 5-6$.

Hab. in foliis Lauraceæ cujusdam, Huallaga Yurimaguas, Perù.

24. *Phyllachora phyllanthophila* P. Henn. Fungi Amaz. II, p. 250. 2897

— Maculis rotundatis fuscidulis v. obsoletis; stromatibus epiphyllis gregarie sparsis, rotundato-pulvinatis, atris, opacis vel subnitentibus, 0,4-0,6 mm.; peritheciis paucis, ovoideis; ascis clavatis, apice rotundatis, basi substipitatis, 8-sporis, $35-45 \times 12-15$; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis subdistichis raro oblique monostichis, ellipsoideis vel subovoideis, intus granulatis, hyalinis, $10-14 \times 5-7$.

Hab. in foliis Phyllanthi spec., Sao Antonio, Perù.

25. *Phyllachora Maprouneæ* P. Henn. Fungi Amaz. II, p. 250. — 2898

Maculis pallidis vel violaceis, rotundatis vel effusis; stromatibus epiphyllis gregarie sparsis, rotundato-pulvinatis, atris, subnitentibus, 0,5 mm.; ascis clavatis, apice rotundatis, 8-sporis $60-100 \times 12-20$; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis, hyalinis, continuis, $9-12 \times 7-9$.

Hab. in foliis Maprouneæ surinamensis Tarapoto, Huallaga, Perù. — Maculis matricis violascentibus dignoscenda specios.

26. *Phyllachora Crotonis* (Cke.) Sacc. — Syll. II, pag. 599. — var. 2899

parvula Syd. Ann. Mycol. 1904, p. 162. — A typo recedit ascis multo minoribus, $42-55 \times 7-9\frac{1}{2}$ sporidiisque minoribus, nempe $7-11 \times 5\frac{1}{2}-7$.

Hab. in foliis vivis Crotonis chamædryfolii, Mattogrosso, Brasilia (SPENCER MOORE). — An propria species?

27. *Phyllachora Simabæ-Cedronis* P. Henn. Pilz. Cost. u. Parag. 2900

p. 147. — Stromatibus amphigenis, stellato-effusis v. plurilobatis, atris, nitentibus, fuciformibus, 1-2 cm. diam.; peritheciis immersis, subglobosis, ostiolis subprominulis; ascis clavatis, obtusis, stipitatis 8-sporis, $50-80 \times 15-26$; sporidiis oblique monostichis v. subdistichis ellipsoideis, hyalinis, intus granulatis, $8-12 \times 5-7$.

Hab. in foliis Simabæ Cedronis, Golfo de Osa, Costarica.

— Stromata stellata *Fucum* minutum æmulantur.

28. *Phyllachora Tonduzii* P. Henn. Fungi costaricensis I, in Hedw. 2901
1902, p. 103. — Maculis fuscis, rotundatis, minutis; stromatibus hypophyllis sparsis v. gregariis, rotundato-pulvinatis, applanatis, atris, subnitentibus, ca. 1 mm. diam.; loculis paucis, subglobosis, ostiolis vix prominulis; ascis clavatis v. subfusoides, obtusis vel subacutiusculis, octosporis, $75-80 \times 15-20$; paraphysibus filiformibus, hyalinis ca. 1 μ . cr.; sporidiis subdistichis, oblonge clavatis, rectis v. curvulis, apice obtusis, basi acutiusculis, continuis $25-35 \times 5-6$, hyalinis.

Hab. in foliis vivis *Myrsines* spec., Cerros de Velirla Amer. centr.

- 29 *Phyllachora Caseariæ* P. Henn. Fungi Amaz. II, pag. 251. — 2902
Maculis rotundatis vel effusis, brunneolis; stromatibus epiphyllis, gregarie sparsis, planis, atro-nitentibus, ostiolis punctoideis; peritheciis immersis, ovoideis; ascis clavatis vel subfusoides, apice rotundatis vel subacutiusculis, 8-sporis, $60-90 \times 10-12$; paraphysibus filiformibus, hyalinis, $1\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis interdum subdistichis, ellipsoideis vel ovoideis, intus granulatis, hyalinis, $8-12 \times 5-6$.

Hab. in foliis *Caseariæ* spec., Manáos, Rio Negro Amazoniæ.

30. *Phyllachora Baumii* P. Henn. in Ergebn. der Kunene Sambesi 2903
Exped. p. 166 (1902). — Maculis sparsis, rotundatis, brunneis v. cinereis exaridis, zona obscuriore circumdati; stromatibus circulariter dispositis, rotundato-pulvinatis, atris, subnitentibus minutis ca. 1 mm. diam.; 1-3 peritheciis globulosis vix ostiolatis; ascis longe clavatis, apice obtusiusculis, basi stipitato-attenuatis, octosporis, $90-150 \times 8-10$; paraphysibus filiformibus, septulatis, 3 μ . cr.; sporidiis oblonge fusoides v. subclavatis, continuis $15-18 \times 5-7$, hyalinis.

Hab. in foliis vivis *Sideroxyli* spec., Jau, Afr. austr.

31. *Phyllachora Melaleucæ* Syd. Ann. Mycol. 1904, p. 164. — Stro- 2904
matibus amphigenis, innatis, minutis, ca. $\frac{1}{3}$ mm. diam., atris, nitidis, hemisphærico-prominulis, paucilocularibus; ascis cylindræis, apice rotundatis, basi breviter stipitatis, $66-84 \times 8-11$, octosporis; sporidiis oblique monostichis, oblongo-ellipsoideis, utrinque obtusiusculis, hyalinis, continuis, $11-14 \times 4\frac{1}{2}-6\frac{1}{2}$; paraphysibus filiformibus.

Hab. in foliis vivis *Melaleucæ spinosæ*, Australia (PREIS; comm. F. W. NEGER).

32. *Phyllachora cinerea* E. et Ev. Journ. of Mycol. 1904, p. 170. — 2905

Stromatibus sparsis, cortice interiore atrato nidulantibus, orbicularibus 500 μ . diam. vel oblongis 1500 \times 750 μ ., intus cinereis, disco fusco cinereo, erumpente, applanato, epidermide rupta cincto; ascis cylindraceo-clavatis, paraphysatis, 80-100 \times 12-15; sporidiis distichis, ovato-ellipsoideis, hyalinis, continuis 12-15 \times 5-7.

Hab. in ramis emortuis *Catalpæ*, London, Canada Amer. bor. — *Socia* adest *Phoma diatrypea*, probabile pycnidium. Loculi parum distincti.

33. *Phyllachora vernoniicola* P. Henn., Fungi S. Paulenses I, in 2906

Hedw. 1902, p. 110. — Maculis fuscidulis; stromatibus innatis, amphigenis sparsis v. gregariis, minutis, pulvinatis, atro-nitentibus 0,3-0,4 mm. diam., plerumque unilocularibus, loculis subglobosis immersis ostiolatis; ascis clavatis apice rotundato-obtusis, octosporis, 70-80 \times 13-15; paraphysibus filiformibus, hyalinis 2-3 μ . cr.; sporidiis monostichis, ovoideis, intus granulatis, 12-14 \times 6-8 hyalinis.

Hab. in foliis *Vernoniæ* spec. in horto botanico, S. Paulo Brasiliæ.

34. *Phyllachora?* *Mutisiæ* Speg. Myc. argent. ser. II, 1902, p. 75. — 2907

Stromatibus hypophyllis, non nitentibus, eximie limitatis 1-5 mm. diam., repando-suborbicularibus, aterrimis, innato-subsuperficialibus, epidermide innatis; loculis constipatis angulato-subglobosis 30-50 μ ., numerosis, nucleo albo farctis; ascis . . .

Hab. ad folia viva *Mutisiarum*, Carreuleofû, in Argentina. — Species vulgata et pulchella sed certe in foliis delapsis tantum maturans.

35. *Phyllachora viticicola* P. Henn. Fungi Amaz. II, pag. 251. — 2908

— Maculis fuscis effusis vel rotundatis; stromatibus gregariis amphigenis innato-erumpentibus, rotundato-pulvinatis, atro-nitentibus, 0,5 mm. diam.; peritheciis paucis immersis; ascis clavatis, apice rotundatis, 8-sporis, 65-80 \times 13-20; paraphysibus filiformibus ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis v. distichis, fusoides utrinque apiculatis, hyalinis, 15-23 \times 8-10.

Hab. in foliis *Viticis* sp. Bom Fim Rio Jurua Amazoniæ. — A *Ph. Tarumæ* sporidiis acute fusoides distincta.

36. *Phyllachora?* *Gaylussaciæ* P. Henn. in Hedw. 1902, p. 303. — 2909

Maculis rotundato-explanatis, rufo-violaceis; stromatibus amphi-

genis, appplanatis, atris, carbonaceis, ca. 0,5-1 cm. diam., opacis, dense granulato-verrucosis; peritheciis immersis, ostiolatis, globulosis; conidiis filiformibus, flexuosis, hyalinis, continuis 30-60 \times 0,5-0,7.

Hab. in foliis Gaylussaciæ spec. pr. S. Paulo Brasilæ.

37. **Phyllachora Macrosiphoniæ** P. Henn. Fungi S. Paulenses III, 2910

p. 206, Hedw. 1904 (nomen correctum), *Phyllachora Heteropteridis* P. Henn., Fungi S. Paulenses I, in Hedw. 1902, p. 110. — Stromatibus epiphyllis, sparsis v. aggregato-confluentibus, carbonaceo-atris, nitentibus, pulvinatis, angulatis, ruguloso-verrucosis 0,5-8 mm. diam.; loculis subglobosis, immersis, ostiolatis; ascis clavatis apice obtusis, 55-65 \times 9-11 octosporis; paraphysibus copiosis, filiformibus, hyalinis; sporidiis oblique monostichis ellipsoideis, utrinque rotundatis, granulosi 6-8 \times 5-6, hyalinis.

Hab. in foliis et fructibus *Macrosiphoniæ* spec. prope S. Paulo Brasilæ. — Stromata hinc inde a *Zythia phyllachoricola* invasa.

38. **Phyllachora effigurata** Syd. Ann. Myc. 1903, p. 178, *Ph. den-* 2911

dritica P. Henn. Hedw. 1902, p. (17) nec Rehm. — Maculis fuscis, effusis; stromatibus sæpe amphigenis, nervos sequentibus, epiphyllis sparsis, minutis, atris, nitentibus, hypophyllis gregariis, subpulvinatis, dendritico-confluentibus, atris, opacis, verrucoso-tuberculatis; peritheciis paucis, globosis, immersis; ascis clavatis, obtusis 70-100 \times 6-11; paraphysibus copiosis, filiformibus, sporidiis oblique monostichis, oblonge ellipsoideis v. clavatis, intus granulosi, 13-18 \times 5-6, hyalinis.

Hab. in foliis *Urostigmatidis* spec. in horto botanico Pará, Amer. austr.

39. **Phyllachora Astrocaryi** P. Henn. in Hedw. 1904, pag. 87. — 2912

Stromatibus erumpente-superficialibus, subglobosis, carbonaceis, atrofuscis, opacis, verrucoso-ostiolatis 1-2 mm. diam.; peritheciis subglobosis immersis; ascis clavatis, apice rotundatis vel appplanatis, pedicellatis, ca. 80-140 \times 13-16, octosporis, paraphysatis; sporidiis oblique monostichis vel subdistichis, fusoides vel oblonge subellipsoideis, utrinque subacutis vel obtusiusculis, hyalinis, 12-14 \times 7-8.

Hab. in foliis *Astrocaryi* spec., Rio de Janeiro Brasilæ (E. ULE).

40. **Phyllachora Scirpi** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2913

1901, p. 99. — Stromatibus sparsis, innatis, oblongo-ellipsoideis,

0,5-1 mm. long.; peritheciis prominulis, verruciformibus, in primis ad stromatis marginem; ascis clavatis, longiuscule stipitatis, obtusulis, 65-85 \times 10-12, octosporis; sporidiis distichis, ellipsoideis, rectis curvulisve, bi-guttulatis, subinde plasmate bipartito, hyalinis, 15-18 \times 4-5.

Hab. in calamis *Scirpi lacustris*, Luxemburg. — *Phyllachoræ Cynodontis* proxime affinis.

41. *Phyllachora eximia* Syd. Ann. Myc. 1904, p. 163. — Stromatibus in 2914

utraq. folii pagina conspicuis, maculis striiformibus flavo-stramineis insidentibus, sparsis v. seriatim confluentibus, singulis oblongis $\frac{1}{2}$ -2 mm. longis, confluentibus majoribus, atris; ascis cylindraceis, apice rotundatis, breviter stipitatis, maximis, 125-200 \times 18-25 μ ., octosporis; sporidiis oblique monostichis vel subdistichis, ellipsoideo-fusiformibus, fine inferiore acutiusculo, altero magis obtuso, continuis, ex hyalino flavescentibus, 25-28 \times 8-12.

Hab. in foliis vivis *Arundinarie alpinae*, Africae or. inter Ssedia et Kwa-Musini-Ssagara, Ussagara (W. Busse). — Ascis sporidiisque majusculis dignoscenda species,

42. *Phyllachora Maydis* Maublanc, Bull. Soc. Mycol. 1904, pag. 72, 2915

t. VII, f. 7. — Stromatibus carbonaceis, amphigenis, subrotundatis v. oblongis, intus loculos monostichos, globulosos v. angulatos foventibus; ascis cylindricis, leviter pedicellatis, 80-100 \times 7-8; paraphysibus numerosis, filiformibus, guttulatis, ascos superantibus, 2-3 μ . cr.; sporidiis monostichis, ovoideis, basi leniter tenuatis, chlorino-hyalinis, dein crasse 1-guttatis granulatisque, 10-14 \times 5,5-6,5.

Hab. in foliis subvivis Zeæ *Maydis* in Mexico, socio et valde Zeæ noxio *Helmintosporio turcico* (Doct. S. BONANSEA). — In loculis junioribus formantur sporulae filiformes, 10-15 \times 0,2.

43. *Phyllachora serialis* Ell. et Ev. in Journ. of Mycol. 1902, vol. 3, 2916

p. 18. — Stromatibus seriatis, internerviis, punctiformibus, initio velatis dein suberumpentibus, plus minusve confluentibus 2-3 mm. diam.; stromatibus singulis 500 μ . diam., in parenchyma foliorum immersis; ascis dense fasciculatis, clavato-cylindraceis, breve stipitatis 75-80 \times 12-15; sporidiis oblique monostichis vel distichis, ovatis, continuis 10-12 \times 5-6, hyalinis.

Hab. in *Spartina stricta*, Pacific Grove, California.

44. *Phyllachora Sacchari* P. Henn. F. javanici novi, in Hedw. 1902, 2917

p. 143. — Maculis pallidis v. fuscis; stromatibus epiphyllis, oblonge pulvinatis, innato-erumpentibus, carbonaceo-atris, opacis, levi-

bus 1-1,5 cm. longis 0,5-1 mm. latis; peritheciis immersis 1 vel paucis; ascis clavatis, apice obtuse rotundatis, octosporis 80-120 \times 15-18; paraphysibus filiformibus, hyalinis; sporidiis subdistichis vel monostichis, ellipsoideis vel ovoideis, utrinque obtusis, intus nebulosis, hyalinis, continuis, 12-18 \times 9-12.

Hab. in foliis Sacchari officinarum, Buitenzorg Javæ.

45. **Phyllachora Vossiae** Syd. Ann. Mycol. 1904, p. 163. — Stroma- 2918

tibus sparsis, utraque pagina folii conspicuis, minutis, subrotundatis vel oblongis, usque 1 mm. longis, atris, paucilocularibus; ascis cylindraceutis, apice rotundatis, breviter stipitatis, 55-66 \times 9-11, octosporis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 9-11 \times 4 $\frac{1}{2}$ -5 $\frac{1}{2}$.

Hab. in foliis vivis Vossiae procerae, Kordofan merid. Birket-Rahad, Africa (Dr. J. PRUND).

46. **Phyllachora Sporoboli** Patouill. in Bull. Soc. Myc. de France, 2919

1903, fasc. 3, p. 258. — Stromatibus sparsis vel confluentibus, elongatis nigris, 1-2 mm. long., epidermide nigrificata nitenti adnata tectis; peritheciis immersis, ostiolis vix prominulis; ascis claviformibus, apice rotundatis, inferne attenuatis 100 \times 20 octosporis; paraphysibus numerosis, linearibus, guttulatis; sporidiis subdistichis, ovoideis, simplicibus, levibus, diu hyalinis, dein pallidissime brunneis 20-23 \times 10; loculis junioribus sporulas lineares, flexuosas, hyalinas, 8-10 \times 0,5 includentibus.

Hab. in Sporoboli (Agrostidis) pungentis, Arzew Algeriae. — Ab affini *Phyll. Cynodontis* Sacc. sporidiis majoribus differt.

47. **Phyllachora Eleusines** Speg. Myc. argent. ser. II, 1902, p. 75. — 2920

Maculis nullis; stromatibus amphigenis, atris, suborbicularibus, levibus, subnitidulis 1-3 mm. diam. parum prominulis; loculis constipatis, e mutua pressione angulatis 150-200 μ . diam., albo-faretis, astomis?; ascis cylindraceutis, apice subtruncatis, deorsum breviter attenuato-pedicellatis 130 μ . long. 12 μ . crass., octosporis; paraphysibus paullo longioribus, filiformibus, septulatis; sporidiis ellipsoideis v. leniter inaequilateralibus, levibus, grosse 1-guttulatis 15 \times 7 hyalinis.

Hab. in foliis vivis Eleusines tristachyæ, La Plata in Argentina.

48. **Phyllachora Chionachnes** Syd. Ann. Mycol. 1904, p. 64. — Stro- 2921

matibus hypophyllis, in epiphylo maculas indeterminatas fusco-violascentes obsoletas generantibus, sparsis v. seriatim dispositis v. irregulariter ordinatis, oblongis, hinc inde confluentibus, solitariis

ca. 1 mm. longis, confluentibus, usque 1 cm. longis, atris, subnitidis; ascis late cylindraceis, apice rotundatis, 45-58 \times 10-11, octosporis; sporidiis oblique monostichis, late ellipsoideis, utrinque rotundatis, intus granulosis, continuis, hyalinis, 9-11 \times 6 $\frac{1}{2}$ -7 $\frac{1}{2}$; paraphysibus numerosis, fusiformibus, apice leniter incrassatis.

Hab. in foliis vivis *Chionachnes barbatae*, Panjab Indiae or. (HOOKER fil. et THOMSON).

49. *Phyllachora graminis* (Pers.) Fuck. — Syll. II, p. 602. — var. 2922

Panici-sulcati P. Henn. Fungi costaricensis I, in Hedw. 1902, p. 103. — Stromatibus amphigenis, gregariis, angulato-rotundatis v. oblongis, atris, 1-1,5 mm. diam., opacis v. subnitentibus; peritheciis subglobosis, immersis, ostioliis vix prominulis; ascis clavatis, apice rotundatis, octosporis, 60-80 \times 10-14, paraphysibus filiformibus, hyalinis ca. 1,5 μ . cr.; sporidiis ellipsoideis v. ovoides, utrinque obtusis, intus pluriguttulatis, 10-15 \times 7-8 continuis, hyalinis.

Hab. in foliis vivis *Panici sulcati*, S. Francisco de Guadalupe Amer. centr.

50. *Phyllachora Arthraxonis* P. Henn. in Hedw. 1904, pag. 142. — 2923

Stromatibus epiphyllis, gregarie sparsis, minute punctiformibus, ca. 250. μ . vel nervos sequentibus oblongis, ca. 1 mm. longis, atris, subopacis, 1-paullo-perithecigeris; ascis clavatis, apice rotundatis 35-45 \times 8-12, octosporis, paraphysatis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel subfusoideo-clavatis, hyalinis, bi-guttulatis, 8-11 \times 4-5.

Hab. in foliis *Arthraxonis ciliaris*, Tôchi in prov. Tosa Japoniae (YOSHINAGA).

51. *Phyllachora pteridiicola* P. Henn. Fungi Amaz. II, p. 249. — 2924

Stromatibus epiphyllis sparsis interdum nervisequentibus, oblonge pulvinatis, brunneis opacis, ca. 0,6-1 mm. longis; peritheciis immersis, vix ostiolatis, subglobosis; ascis cylindraceo-clavatis apice obtuse applanatis, 8-sporis, paraphysatis, 90-100 \times 10-15; sporidiis oblique monostichis v. subdistichis, oblonge fusculeis, plerumque acutiusculis, continuis, hyalinis, 18-22 \times 7-8.

Hab. in foliis *Pteridis aquilinae*, Manáos, Rio Negro Amazoniae — A *Ph. Flabella* (Schw.) Thüm. omnino distincta.

52. *Phyllachora filicina* Saccardo et Scalia, Harrim. Alaska Exped. 2925

Crypt. p. 27, pl. V, f. 15. — Stromatibus epiphyllis, maculiformibus, atris, applanatis, parum emergentibus, ambitu e circulari angulosis, superficie regulari, contextu atro-brunneo, parenchymatico; loculis numerosis, immersis, globosis, 70-80 μ diam., pallidioribus;

ascis tereti-clavatis, brevissime stipitatis, $70 \times 10-11,5$, apice rotundatis, octosporis; sporidiis elliptico-oblongis, utrinque rotundatis, rectis, $14-15 \times 5-6$, continuis, hyalinis, intus granuloso, faretis.

Hab. in foliis vivis *Aspidii Lonchitis*, Unalaska Alaska (EVERMANN). — *Pulchella* species, omnino distincta.

EURYACHORA Fuck. — Syll. II, p. 625, IX p. 1030, XIV p. 674, XVI p. 624.

1. **Euryachora** ? *Arjonæ* Speg. Myc. argent. ser. II, 1902, p. 75. — 2926

Stromatibus innatis, epidermide arete adharente vestitis, extus intusque atris, levibus, primo minutis granuliformibus, dein effusis totam matricem infestantibus; loculis confertissimis, subglobosis v. e mutua pressione angulosis 50μ . diam., obsolete ostiolatis, nucleo filamentoso-mucedineo, albo repletis.

Hab. ad folia et caules vivos *Arjonarum*, Mendoza et Chubut in Argentina. — Species vulgatissima sed adhuc semper sterilis inventa; caules et folia infecta sæpius leviter hypertrophica crassiuscula, primo pallidiora stromatibus punctiformibus plus minusve gregariis, subseriatis percursa, mox tota sæpius utrinque tecta.

Sect. 2. Phæosporæ.

AUERSWALDIA Sacc. — Syll. II p. 626, IX p. 1031, XI p. 374, XIV p. 675, XVI p. 625.

1. **Auerswaldia** *Balansæ* (Speg.?) Fl. Tassi in Bull. Lab. Ort. Bot. 2927

Siena 1904, p. 74, *Lasmenia Balansæ* Speg. — Syll. X, p. 425. — Maculis nullis; stromatibus hypophyllis $300-500 \mu$. diam.; partim orbicularibus, partim irregularibus, densiuscule sparsis, numquam confluentibus, nigris, levibus, glabris, pulvinatis, parenchyma inter duas epidermides pervadentibus; loculis in quoque stromate sæpe solitariis v. paucis 2-3, immersis, albo-faretis; ascis cylindricis, apice rotundatis, deorsum breve attenuatis, octosporis, $100-125 \times 14-15$; sporidiis monostichis, haud raro subdistichis, ellipticis, utrinque obtusulis $15-20 \times 8-9$ non v. grosse 1-guttulatis, brunneo-olivaceis, paraphysibus filiformibus obsoletis obvallatis.

Hab. in foliis vivis *Eugeniæ* spec. Cerro Hu, prov. Paraguay (B. BALANSA, Pl. du Paraguay n. 3750).

2. **Auerswaldia** *Miconiæ* P. Henn. Fungi Amaz. II, p. 253. — Ma. 2928.

culis rufo-brunneis, rotundatis; stromatibus hypophyllis sparsis, atro-carbonaceis, pulvinato-erumpentibus, rotundatis, ruguloso-verrucosis, ca. 1 mm. diam.; peritheciis subimmersis, verrucoso-ostiolatis; ascis cylindraceo-clavatis, apice obtusis, 8-sporis, 120-130 \times 6-7; paraphysibus filiformibus, hyalinis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis ellipsoideis, utrinque rotundatis, 10-13 \times 4-5 $\frac{1}{2}$, atris, continuis.

Hab. in foliis *Miconiæ* spec., Rio Juruá Amazoniæ. — Ab *Auersw. Fiebrigii* omnino diversa.

3. **Auerswaldia Fiebrigii** P. Henn. Pilz. Costar. u. Parag. p. 148. — 2929

Maculis rotundatis, rufo-brunneis; stromatibus pulvinato-applanatis vel subdiscoideis sparsis vel gregariis hypophyllis, atris, verruculosis, 1-2 mm. diam.; peritheciis immersis, subglobosis, obtuse ostiolatis; ascis clavatis vel subfusoides, obtusis, 8-sporis, 120-160 \times 10-13; paraphysibus subramosis, hyalinis, 2-3 μ . crassis; sporidiis oblonge fusoides utrinque obtusiusculis, continuis, primo hyalinis dein flavo-brunneis vel fuscis, 15-24 \times 6-8.

Hab. in foliis *Miconiæ* spec., Cordillera de Altos Paraguay (K. FIEBRIG). — Sporidiis late brunneis v. flavo-brunneis distincta species.

4. **Auerswaldia Leandræ** Syd. in Hedw. 1901, p. 2. — Maculis epi- 2930

phyllis minutis, brunneis, interdum obsolete; stromatibus hypophyllis, sparsis non confluentibus, innato-superficialibus globosis v. hemisphærico-sublenticularibus, verruciformibus 1-1,5 mm. d., atris, rugulosis; loculis numerosis, globulosis v. ovatis 180-240 μ . diam.; ascis cylindraceis, breviter stipitatis, rectis 95-120 \times 6-8, octosporis; paraphysibus filiformibus, flexuosis; sporidiis monostichis, ovatis v. oblongis, utrinque rotundatis, continuis, primo hyalinis, demum fuscidulis, intus granulosis, 13-16 \times 4-6.

Hab. in foliis vivis *Leandræ cordifoliæ*, Rio-Grande do Sul Amer. austr. (REINECK et CZERMACK).

5. **Auerswaldia Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 2931

1902, pag. 111. — Maculis bullatis, rotundatis, fuscis, 5-10 mm. diam.; stromatibus epiphyllis, rarissime hypophyllis gregarie erumpentibus, subgloboso-depressis, botryoso-rugosis, atro-carbonaceis, opacis 1-1,5 mm. diam.; peritheciis subglobosis, immersis, pallidis; ascis clavatis vel subfusoides, apice obtusis vel subacutiusculis, basi attenuatis, octosporis, 120-150 \times 17-25; paraphysibus filiformibus, hyalinis 3-4 μ . cr.; sporidiis oblique monostichis v. distichis, ovoideis v. ellipsoideis, 16-22 \times 12-14, hyalino-fuscidulis.

Hab. in foliis Lauracearum, Sao Paulo Brasiliæ.

6. **Auerswaldia Cecropiæ** P. Henn. Fungi Amaz. II, pag. 253. — 2932

Maculis rufo-brunneis, rotundatis; stromatibus erumpenti-superficialibus, applanato-pulvinatis, atro-carbonaceis, ruguloso-verrucosis, ca. 1-2 mm. diam.; peritheciis immersis, subglobosis; ascis clavatis, obtusis, 8-sporis, $50-80 \times 14-22$; paraphysibus filiformibus, hyalinis; sporidiis subdistichis, ellipsoideis vel ovoideis, continuis, utrinque rotundatis, primo hyalino-granulatis, dein fuscis, $13-18 \times 8-11$.

Hab. in foliis Cecropiæ spec., Rio Jurua Amazoniæ.

7. **Auerswaldia microthyrioides** P. Henn. in Hedw. 1904, p. 142. — 2933

Stromatibus innato-superficialibus epiphyllis, sparse gregariis paginam totam vestitientibus, minutis, carbonaceis, rotundato-pulvinatis, atris, nitentibus, ostiolatis, margine plano subopaco circumdati 0,3-1 mm. diam., 1 pauci-perithecieris; ascis clavatis, apice rotundatis $35-45 \times 13-17$, octosporis; paraphysibus copiosis, filiformibus, hyalinis; sporidiis subdistichis, ellipsoideis, intus granulosi, hyalini, dein fusciduli, $9-13 \times 6-8$.

Hab. in foliis Fici erectæ, Tôchi-mura in prov. Tosa Japoniæ (YOSHINAGA).

8. **Auerswaldia quercicola** P. Henn. in Hedw. 1904, pag. 142. — 2934

Stromatibus epiphyllis, innato-superficialibus, gregariis, carbonaceis, atro-nitentibus, rotundato-pulvinatis, levibus 1-2 mm. diam.; peritheciis paucis immersis, globulosis; ascis clavatis, apice rotundatis, octosporis $90-130 \times 12-18$; paraphysibus copiosis, hyalinis filiformibus ca. 2-3 μ . crassis; sporidiis oblique monostichis vel distichis, ellipsoideis utrinque rotundatis, fusco-brunneis, basi subhyalino-papillatis $15-20 \times 8-10$; stromatibus conidiogeni æqualibus; basidiis ramosis, septatis 3-4 μ . crassis, hyalinis; sporulis acrogenis, fuscoideis, medio 1-septatis, biguttulatis, $10-20 \times 3,5-4$.

Hab. in foliis Quercus thalassicæ in prov. Tosa Japoniæ (YOSHINAGA).

9. **Auerswaldia quercina** G. Cam. in Revista Agronom. de Portugal. 2935

1903, n. 2, pag. 57, tab. VII, fig. 7 et tab. VIII, fig. 1-3. — Maculis nullis; stromatibus epiphyllis, subhemisphaericis (raro hypophyllis, irregularibus), plerumque in rachide dispositis, sæpe confluentibus, subsuperficialibus, magnitudine varia 1-4 mm., loculis omnino prominulis, haud immersis, inæqualibus, numerosis, lenticularibus vel subconoideis, minutis, $130-180 \times 60-80$, ostiolo indistincto, contextu albo farctis; ascis oblongis, apice rotundatis,

stipitatis, octosporis 70-75 × 18-20, paraphysatis; sporidiis subcymbiformibus, levibus, continuis, pallide salmonæis, distichis, 18-25 × 10-12, granulosis.

Hab. in foliis vivis *Quercus humilis*, S. Martinho do Bispo, prope Coimbra Lusitanicæ.

10. **Auerswaldia maxima** Massee in Kew Bull. 1901, pag. 166. — 2936

Stromatibus disciformibus, erumpentibus, rotundatis, seu irregularibus, atris, opacis, multilocularibus 1-2 cm. latis; loculis dense congestis, immersis; ascis cylindraceis, octosporis, 120 × 10; sporidiis monostichis, ellipsoideis, continuis, brunneis, opacis 12 × 6-7.

Hab. in ramis emortuis in horto botanico Aburi, Gold Coast Africae occident. — *Auersw. disciformi* Wint. affinis.

Sect. 3. *Hyalodidymæ*.

MICROCYCLUS Sacc. in Ann. Mycol. 1904, p. 165 (Etym. *micros* et *cyclos* ob stromata minuta circularia). — Stromata superficialia, minuta, disciformia, atra; loculis immersis. Asci octospori. Sporidia oblonga, 1-septata, hyalina. — A *Dothidella* differt stromate superficiali, disciformi, sæpius minuto.

I. *Eu-Microcyclus*. Stromata a matrice non secedentia.

1. **Microcyclus angoliensis** Sacc. et Syd. Ann. Myc. I. c. — Stromatibus in greges usque 5 mm. diam. dispositis, plerumque hypophyllis, superficialibus, in folio vivo subimmutato nascentibus, exiguis, disciformibus, 250 µ. diam., applanatis, rugulosis, aterrimis; loculis pluribus globosis, 70-80 µ. diam., ostiolis non emergentibus clavulatis, apice rotundatis, breviter stipitatis, 50-64 × 12-15, octosporis; sporidiis distichis, oblongis, 1-septatis, loculo superiore latiore, hyalinis, 14-18 × 3 1/2 - 5. 2937

Hab. in foliis vivis Millettiae Thonningii, Angola Africae (WELWITSCH).

2. **Microcyclus scutula** (B. et C.) Sacc. I. c. = *Dothidella scutula* (B. et C.) Sacc. in Syll. II, p. 632.
3. **Microcyclus Osyridis** (Cke.) Sacc. I. c. = *Dothidella Osyridis* (Cke.) Berl. et Vogl., Addit. Syll. p. 240 — Syll. IX, p. 1038.
4. **Microcyclus Tassianus** (Sacc.) Syd. = *Dothidella Osyridis* subsp. *Tassiana* Sacc. in Bull. Soc. Myc. France 1896, p. 69 — Syll. XIV, p. 676.

5. *Microcyclus Bicchianus* (De Not.) Syd. l. c. = *Dothidella Bicchiana* (De Not.) Sacc. Syll. II, p. 633.
6. *Microcyclus Adenocalymmatidis* (P. Henn.) Syd. l. c. = *Dothidella Adenocalymmatidis* P. Henn. Hedw. 1895, p. 323 — Syll. XIV, p. 677.
7. *Microcyclus Mikaniae* (P. Henn.) Syd. l. c. = *Dothidella Mikaniae* P. Henn. in Hedw. 1902, p. 111. Cfr. infra p. 849.

II. *Chorisodothis* S. et S. Stromata facile secedentia.

8. *Microcyclus labens* Sacc. et Syd. Ann. Mycol. 1904, p. 165. — 2938
 Stromatibus hypophyllis, superficialibus, immo facile secedentibus, disciformi-applanatis, ambitu suborbicularibus, 1 mm. latis v. confluen-
 do latoribus, subcarbonaceis, opace nigris, superficie leviter
 colliculosa, intus imperfecte plurilocularibus, pallidioribus, ostioliis
 non distinctis; ascis cylindraceo-clavatis, breve stipitatis, 50-80 ×
 11-14, octosporis; paraphysibus apice ramulosis, subcoalescentibus;
 sporidiis irregulariter distichis, ellipsoideis, utrinque rotundatis,
 hyalinis, 12-15 × 5-6, plasmate bipartito inæqualiter bilocularibus,
 denique leniter constrictis, loculo majore modo supero modo infero.
Hab. in foliis *Eugeniæ* spec., Concepcion in Chile frequens
 (F. W. NÆGER). — Ob stroma superficiale a matrice facile sece-
 dens et loculos et ostiola non distincta forte novi generis typus
 (*Chorisodothis* Sacc. et Syd.)

PLOWRIGHTIA Sacc. — Syll. II p. 635, IX p. 1041, XI p. 376,
 XIV p. 680, XVI p. 628.

1. *Plowrightia Mali* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2939
 p. 100 et Nachtr. I, p. 151, n. 449, *Plowrightia* spec. — Stro-
 matibus erumpenti-subsuperficialibus, orbicularibus, nigris, 300-
 600 µ. diam., disco applanato, ostioliis 5-15 minutis, vix prominu-
 lis, punctato; ascis tereti-clavatis 110-120 × 12; sporidiis mono-
 subdistichis, inæqualiter bi-cellularibus, utrinque acutulis, 25-35 ×
 7-8, hyalinis vel chlorinis.

Hab. in ramis emortuis Piri Mali, Luxemburg.

2. *Plowrightia noxia* (Ruhl.) Sacc. et D. Sacc. *Dothidea noxia* Ruhl. 2940
 in Centralbl. f. Bakter. 1904, XII, p. 252. — Stromatibus per
 majorem partem innatis, per corticem fissum tuberculari-erumpen-
 tibus, æqualiter et densiuscule sparsis, non confluentibus, plerum-
 que transverse oblongo-ellipticis v. suborbicularibus, vix emergen-
 tibus, peridermii laciniis plus minus tectis, atris minutis, $\frac{1}{2}$ - $\frac{2}{3}$,

raro 1 mm. latis; loculis 3-8-compluribus, plus minus periphericis, dense constipatis, parvis; ascis cylindraceo-clavatis, apice obtusatis, basi breviter tenuatis, $120-140 \approx 9-11,5$; sporidiis oblique monostichis, rarissime subdistichis, fusoideo-oblongis, utrinque obtusatis v. obtusiusculis, 1-septatis, ad septum valde constrictis, utraque cellula binucleatis, hyalinis, $18,5-22 \approx 4,5-6$.

Hab. in cortice vivo *Quercus* nec non *Fagi* et *Castaneæ* Meklemburg Germaniæ borealis, socio statu pyrenidico *Fusicocco noxio* Ruhl. — Arboribus indicatis species vere noxia.

3. *Plowrightia circumscissa* Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 187. — Maculis latis; stromatibus dense sparsis, nigris subcutaneis dein erumpentibus in areis circumscissis, irregulariter ovatis vel suborbicularibus, raro confluentibus 0,8-1 mm. diam., ostioli 3-8 in quoque stromate vel compluribus; ascis stipitatis, aparaphysatis, $60-80 \approx 16$; sporidiis subdistichis, ovatis, 1-septatis, hyalinis, $20 \approx 5$.

Hab. in foliis languidis *Agaves* spec., Longboat Key, Fla., Amer. bor.

4. *Plowrightia argentinensis* Speg. Myc. argent. ser. II, 1902, p. 76. 2942

— Stromatibus subsuperficialibus, a matrice cinerescente vel nigrefacta facile integre secedentibus 1-3 mm. diam. 0,5-1 mm. crass., superne planis sed etiam convexulis, inferne coarctatis applanatis, margine rotundatis non nitentibus, atris, carbonaceis opacis minutissime ostiolato-papillosis; loculis numerosis ellipticis, $100-120 \approx 125-150$; ascis clavulatis, breviter pedicellatis, paraphysatis $50-60 \approx 6-8$, densiuscule paraphysatis; sporidiis oblique subdistichis, utrinque acutis, $16 \approx 3$, sæpe subcurvulis, loculis subæquilongis grosse 1-guttulatis.

Hab. ad culmos aridos *Setariæ* cujusdam prope Mendoza et in culmis subemortuis *Gymnopogonis* spec. pr. Rufino in Argentina. — Species eximia habitu fere *Hypocree* cujusdam, sed stromatibus atris, carbonaceis mox dignoscenda.

DOTHIDELLA Speg. — Syll. II p. 627, IX p. 1036, XI p. 375, XIV p. 676, XVI p. 626.

1. *Dothidella Melicyti* Syd. Ann. Myc. 1904, p. 164. — Stromatibus 2943 amphigenis, rotundatis vel subrotundatis, innatis, $\frac{1}{2}-1\frac{1}{2}$ mm. diam., atris, rugulosis; loculis numerosis; ascis cylindraceo-clavatis, apice rotundatis, breviter stipitatis, $45-65 \approx 9-12$, octosporis; sporidiis distichis, subnavicularibus v. subfusoideis, utrinque atte-

nuatis, sed obtusiusculis, rectis vel leniter inæquilateris, medio 1-septatis, non constrictis, hyalinis, $20-24 \times 3\frac{1}{2}-5$.

Hab in foliis vivis Melicyti ramiflori, Highcliff. South Island Novæ Zealandiæ (L. COCKAYNE).

2. **Dothidella Serjanæ** P. Henn. in Hedw. 1904, p. 87. — Stroma- 2944
tibus ramicolis, erumpenti-superficialibus, gregariis confluentibus, pulvinatis, fusco-brunneis, opacis, rugulosis, 2-5 mm. diam.; peritheciis immersis, subovoideis; ascis clavatis, apice rotundatis octo-sporis, $40-55 \times 10-16$; sporidiis oblique monostichis vel distichis oblonge clavatis vel fuscoideis, utrinque obtusis, rectis v. subcurvulis, medio 1-septatis paullo constrictis, hyalinis $12-18 \times 4-5,5$.

Hab. in ramulis Serjanæ spec., Corcovado, Rio de Janeiro Brasilæ (E. ULE).

3. **Dothidella Pterolobii** Rostr. in Bot. Tidsskrift Copenhagen, 1902, 2945
vol. 24, p. 212. — Stromatibus hypophyllis, oblongis, pulvinatis, fusco-nigris, 0,5-1 mm. longis; ascis obsoletis; sporidiis hyalinis, oblongo-clavatis, 1-septatis, $11-12 \times 4-5$.

Hab. in foliis Pterolobii Schmidtiani, Siam Asiæ merid.

4. **Dothidella lonchocarpicola** P. Henn. Fungi Amaz. II, p. 255. — 2946
Maculis fusculis effusis; stromatibus hypophyllis gregariis, inato-superficialibus, rotundato-pulvinatis, subplanis, atris, subnitentibus, ca. 0,3-0,4 mm. diam.; peritheciis paucis, immersis, globulosis, minute ostiolatis; ascis subfuscoideis, apice attenuatis, rotundatis, 8-sporis, $60-70 \times 7-9$; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis v. distichis, oblonge fuscoideis utrinque acutis, rectis vel curvulis, guttulatis, medio 1-septatis vix constrictis, hyalinis, $15-22 \times 4-4\frac{1}{2}$.

Hab. in foliis Lonchocarpi spec., Marary, Rio Jurua Amazoniæ. — Sporidia subinde simulate pluriseptata.

5. **Dothidella machæriophila** P. Henn. Fungi Amaz. p. 256. — Ma- 2947
culis flavido-brunneolis, rotundatis; stromatibus epiphyllis, gregarie sparsis, atro-carbonaceis, rotundato-pulvinatis, rugulosis, $1-1\frac{1}{2}$ mm. diam.; peritheciis subglobosis immersis; ascis subfuscoideis vel subclavatis, apice obtusiusculis, 8-sporis, $50-70 \times 7-9$; paraphysibus filiformibus; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel ovoideis, utrinque obtusis, medio 1-septatis, vix constrictis, $8-10 \times 4\frac{1}{2}-5\frac{1}{2}$, atris.

Hab. in foliis Machærii spec., Fortaleza, Rio Jurua Amazoniæ.

6. **Dothidella Piptadeniæ** P. Henn. Fungi Amaz. II, p. 254. — Ma- 2948

culis fuscidulis, effusis; stromatibus innato-epiphyllis gregariis, rotundato-pulvinatis, atro-nitentibus, minutis, ca. 250 μ . diam.; peritheciis singularibus vel paucis, immersis; ascis clavatis, apice rotundatis, 8-sporis, 50-70 \times 12-17, paraphysibus filiformibus, hyalinis, ca. 1 $\frac{1}{2}$ crassis; sporidiis oblique monostichis vel subdistichis, ovoideis, submedio 1-septatis, constrictis, cellula superiori majori, cellula inferiori subtriquetra subcurvula, 11-13 \times 6-7.

Hab. in foliis Piptadeniæ spec. Tarapoto, Perù. — Stromate perexiguo *Stigmateum* in memoriam revocat.

7. **Dothidella Parkiæ** P. Henn. Fungi Amaz. II, p. 254 — Maculis 2949
fuscidulis effusis; stromatibus epiphyllis, erumpente-superficialibus, minutis, rotundato-pulvinatis, atro-nitentibus; peritheciis paucis immersis; ascis clavatis, rotundato-obtusis, 50-60 \times 16-20, 8-sporis; paraphysibus filiformibus, hyalinis ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis, fusoideis, acutiusculis, submedio 1-septatis, intus granulatis, 13-18 \times 5-7.

Hab. in foliis Parkiæ spec., Rio Juruá Amazoniæ. — Stromata exigua non raro perithecium unicum foventia.

8. **Dothidella yapensis** Henn. in Hedw. 1902, pag. (64). — Maculis 2950
fuscidulis, rotundatis; peritheciis hypophyllis interdum epiphyllis, gregariis, rotundato-pulvinatis sæpe confluentibus 0,5-1 mm. diam., verrucose-papillatis, carbonaceo-atris, opacis; peritheciis plerumque paucis, subglobosis; ascis oblonge clavatis, apice obtusiusculis, basi curvulis, octosporis 50-70 \times 9-14; paraphysibus filiformibus hyalinis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel ovoideis, utrinque obtusis, hyalinis, medio 1-septatis, haud constrictis 7-10 \times 4-5.

Hab. in foliis vivis Derridis ellipticæ, Yap in insulis Carolinis (G. VOLKENS).

9. **Dothidella mararyensis** P. Henn. Fungi Amaz. III, 1904, p. 369. 2951
— Maculis flavo-brunneis, rotundatis; stromatibus innatis, amphigenis rotundatis, applanatis, atris, ca. 1-2 mm. diam.; ostioliis subhemisphaericis, nitentibus; peritheciis subglobosis; ascis clavatis v. subfusoideis, rotundatis v. subacutiusculis, 8-sporis, paraphysatis, 50-60 \times 10-12; sporidiis oblique monostichis vel distichis, oblonge fusoideis vel subclavatis, 2-3-guttulatis, primo continuis, deinde medio 1-septatis vix constrictis, 13-16 \times 4 $\frac{1}{2}$ -5 $\frac{1}{2}$, hyalinis.

Hab. in foliis Meliaceæ ejusdam, Marary, Rio Juruá Amazoniæ.

10. **Dothidella huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 369. 2952

— Maculis fuscidulis v. pallidulis, rotundatis; stromatibus innato-erumpentibus concentrice dispositis, hemisphaericis, rugulosis, atris, opacis, ca. 180-250 μ .; peritheciis immersis, subglobosis; ascis clavatis vel subfusoides, 8-sporis, paraphysatis, 50-60 \times 13-15; sporidiis oblonge clavatis, rectis v. curvulis, hyalinis, medio 1-septatis vix constrictis, hyalinis, 20-25 \times 4-5.

Hab. in foliis Saururaceæ cujusdam Cerro de Escaler, Perù.

11. *Dothidella Arechavaletæ* Speg. Myc. argent. ser. II, 1902, p. 76. 2953

— Stromatibus amphigenis, hypophyllis vix prominulis tectis, epiphyllis magis prominulis, atris, innatis, subgloboso-lenticularibus, laxe gregariis, 0,3-0,5 mm. diam.; loculis in quoque stromate 1-5, globosis, e mutua pressione angulosis 100-120 μ . diam.; ascis apice obtuse rotundatis crassiuscule tunicatis 60-65 \times 10, brevissime pedicellatis, octosporis, aparaphysatis; sporidiis rectis v. leniter curvulis 22 \times 4, utrinque subobtusiusculis, subclavulatis, medio 1-septatis, non v. constrictis hyalinis, an tandem 3-septatis atque chlorinis?

Hab. in foliis vivis Ocoteæ acutifoliæ prope Montevideo, in Uruguay.

12. *Dothidella Mikanæ* P. Henn., Fungi S. Paulenses I, in Hedw. 2954

1902, p. 111. — Stromatibus epiphyllis sparsis, minutis, pulvinato-verrucosis, atris, subcarbonaceis, opacis, 0,3-0,8 mm. diam., peritheciis globulosis ca. 150-200 μ . diam.; ascis clavatis, apice obtusis, basi attenuato-stipitatis, octosporis, 50-65 \times 12-16; paraphysibus filiformibus, hyalinis ca. 1,5 μ . cr.; sporidiis oblique monostichis vel distichis, ovoideis, ellipsoideis vel subfusoides, medio 1-septatis, loculis 1-guttulatis, 10-14 \times 4-5, hyalinis.

Hab. in foliis Mikanæ pr. S. Paulo Brasiliæ. Cfr. supra p. 845.

13. *Dothidella Ulei* P. Henn. Fungi Amaz. II, p. 254. — Stromati- 2955

bus erumpenti-superficialibus cæspitose congestis, ovoideis, carbonaceo-atris, rugulosis, ca. $\frac{1}{3}$ -3 mm. diam.; peritheciis paucis, ovoideis immersis; ascis clavatis, rotundato-obtusis, 8-sporis, paraphysatis, 50-80 \times 10-16; sporidiis subdistichis, oblonge clavatis, hyalinis, medio 1-septatis, haud constrictis, 13-20.

Hab. in foliis Heveæ brasiliensis, Rio Juruá Amazoniæ.

14. *Dothidella Coutoubeæ* P. Henn. Fungi Amaz. II, pag. 254. — 2956

Stromatibus epiphyllis gregarie sparsis, innato-erumpentibus, rotundato-pulvinatis, planis, atris, punctoideo-ostiolatis, ca. 1-2 mm. diam.; peritheciis immersis subglobosis v. ovoideis; ascis fusoides, subobtusis, 8-sporis, 70-90 \times 6-9; paraphysibus filiformibus, hyali-

nis, 1 μ . crassis; sporidiis oblique monostichis vel subdistichis, fuscoideis vel ovoideis, medio 1-septatis vix constrictis, hyalinis, $10-12 \approx 4\frac{1}{2}-5\frac{1}{2}$.

Hab. in foliis Coutoubeæ guyanensis, Manáos, Rio Negro Amazoniæ.

15. *Dothidella Kusanoi* P. Henn. in Hedw. 1904, p. 143. — Maculis ²⁹⁵⁷ fuscidulis rotundatis ca. 5 mm. diam.; stromatibus erumpenti-superficialibus, epiphyllis, circulariter dispositis, minutis, hemisphærico-pulvinatis, carbonaceis, atris nitentibus; peritheciis 1- v. paucis ca. 200 μ . d. globulosis; ascis clavatis, obtusè rotundatis, 4-8-sporis, paraphysatis $80-90 \approx 30-40$; sporidiis subdistichis oblongis, utrinque rotundatis, ad basim 1-septatis vix constrictis, $25-35 \approx 15-20$ hyalinis.

Hab. in foliis *Quercus glaucae* in Mt. Takao Japoniæ (KUSANO).

16. *Dothidella betulina* (Fr.) Sacc. — Syll. II, p. 628. — var. *yaku-* ²⁹⁵⁸ *tatiana* Saccardo et Scalia, Harrim. Alaska Exped. Crypt. pag. 27. pl. V, fig. 15. — Stromatibus innato-erumpentibus, pulvinato-applanatis, subtilissime punctulatis, atris, 5 mm. diam.; loculis minutissimis, globulosis, 50 μ . diam., ostiolo pertusis; ascis oblongo-cylindræis, apice rotundatis, deorsum nonnunquam incrassatulis, subsessilibus, $40-48 \approx 10-12$, octosporis; sporidiis subdistichis vel polystichis, obovato-cuneatis, apice rotundatis, basi acutatis, 1-septatis, non constrictis, eguttulatis, $10-12 \approx 3-4$, e chlorino hyalinis.

Hab. in foliis emortuis arboris ignotæ, Yakutat Bay Alaska (TRELEASE).

17. *Dothidella Heliconiæ* P. Henn. Fungi Amaz. p. 255. — Maculis ²⁹⁵⁹ effusis, fuscis; stromatibus gregarie erumpentibus, oblongis, ruguloso-verrucosis, atris, subcarbonaceis, 1-3 mm. diam.; peritheciis subglobosis verrucoso-papillatis; ascis clavatis, obtusis, 8-sporis, $70-75 \approx 7-8$; paraphysibus filiformibus, hyalinis; sporidiis subdistichis oblonge fuscoideis vel clavatis, medio 1-septatis hyalinis $10-12 \approx 3\frac{1}{2}-4$.

Hab. in foliis *Heliconiæ* spec., Rio Jurua Amazoniæ. — Ob exemplaria male evoluta species aliquantum incerta.

18. *Dothidella scleriticola* P. Henn. Fungi Amaz. II, pag. 253. — ²⁹⁶⁰ Stromatibus amphigenis gregariis, innato-erumpentibus minutis, oblonge vel rotundato-pulvinatis, atro-nitentibus ca. 250 μ .; peritheciis paucis, immersis; ascis clavatis rotundatis, 8-sporis, $60-80 \approx 12-17$ paraphysatis; sporidiis oblique monostichis v. distichis ob-

longe fusoides vel clavatis, subobtusis, $20-25 \approx 4\frac{1}{2}-5\frac{1}{2}$, guttulis, medio 1-septatis haud constrictis, hyalinis.

Hab. in foliis *Scleriae* spec., prope Rio Jurua Amazoniae. — Cum *Phyllachora Scleriae* ascis late clavatis et sporidiis bilocularibus non confundenda.

19. *Dothidella minima* Sacc. et Syd. Ann. Mycol. 1904, pag. 164. — 2961

— Stromatibus sparsis vel laxe gregariis, plerumque hypophyllis, minutissimis, vix 250μ . longis, innato-erumpentibus, appianatis, ambitu oblongo-quadraticis, nigris; loculis in quoque stromate pluribus, globulosis, $45-60 \mu$. diam.; ascis tereti-clavatis, apice rotundatis, breve noduloso-stipitatis, $45-50 \approx 8,5-9$, octosporis aparaphysatis (?); sporidiis distichis vel oblique monostichis, fusideo-oblongis utrinque obtusulis, $11-12 \approx 2\frac{1}{2}-3$, medio 1-septatis, non vel vix constrictis, hyalinis.

Hab. in foliis languidis *Arundinariae macrospermæ*, New Orleans, Louisiana Americae bor. — Minutiae stromatis et loculorum mox dignoscitur.

20. *Dothidella toensis* P. Henn. Pilze Jap. II, p. 152. — Stroma 2962

tibus amphigenis, oblongis striiformibus, primo tectis dein erumpentibus, atris, ca. $0,5-1$ mm. longis, $200-250 \mu$. latis; peritheciis sparsis, subglobosis, immersis; ascis cylindraceo-clavatis, obtusis breve stipitatis, 8-sporis, paraphysatis, $60-70 \approx 6-7$; sporidiis oblique monostichis ellipsoideis vel ovoideis, obtusis, guttulis, hyalinis, medio 1-septatis, $7-12 \approx 5-6$.

Hab. in foliis *Agrostidis* perennantis, Komodsumura, Tosa Japoniae.

21. *Dothidella platensis* Speg. Myc. argent. ser. II, 1902, p. 76. — 2963

Maculis nullis v. pallescentibus, effusis, indeterminatis; stromatibus amphigenis, elliptico-linearibus, opacis, levibus $0,5-1$ mm. long. $0,2-0,3$ mm. diam.; loculis constipatis, globosis, $150-200 \mu$. diam., ostiolo minutissimo non vel vix prominulo donatis; ascis cylindraceo-clavulatis dense paraphysatis $100-120 \approx 12-14$; paraphysibus filiformibus; sporidiis monostichis vel distichis, rectis oblanceolatis v. subovatis, $22 \approx 8$, medio-septatis, non constrictis, loculo supero obtusiusculo, infero acutissimo fere cuspidato.

Hab. ad folia viva *Paspali platensis* prope La Plata in Argentina.

22. *Dothidella Setariae* Sacc. Notæ mycologicae in Syd. Ann. Mycol. 2964

1903, n. 1, p. 25. — Stromatibus epiphyllis, dense gregariis, tenuibus, oblongis, brunneo-atris, vix $\frac{1}{4}$ mm. long., superne strato

unico cellularum 5-7 μ . diam. formatis, intus (saltem initio) sub-unilocularibus; ascis clavato-oblongis, brevissime stipitatis, 48-55 \approx 13, spurie paraphysatis; sporidiis distichis oblongo-clavulatis medio 1-septatis constrictisque, 16 \approx 6, hyalinis, faretis; stromatibus pycnidicis similibus et intermixtis; sporulis oblongis, utrinque rotundatis, 10 \approx 3, biguttulatis, hyalinis, basidiis bacillaribus 10-12 \approx 2,5-3 suffultis.

Hab. in foliis adhuc vivis *Setariæ glaucae*, Montello (Treviso) Italiae borealis. — Status pycnidicus est *Phyllachora*? *Setariæ* Sacc. Syll. II, p. 623, *Placosphaeria Setariæ* Sacc. nuncupandus.

23. *Dothidella Stübelii* P. Henn. Pilz. Costar. u. Parag. p. 148. — 2965
Stromatibus foliorum marginalibus, pulvinatis, atris, opacis, verrucosis ca. 0,3-0,5 mm. diam.; peritheciis immersis, hemisphaerico-ostiolatis; ascis clavatis, obtusis, 8-sporis, 45-60 \approx 7-10; paraphysibus filiformibus septatis; sporidiis oblique monostichis vel subdistichis, subclavatis vel subfusoides, obtusis, subcurvulis, 8-11 \approx 2 $\frac{1}{2}$ -3 $\frac{1}{2}$, hyalinis, medio 1-septatis, haud constrictis.

Hab. in foliis *Pteridis deflexæ*, Bogota Columbiae (A. STÜBEL).

ROSENSCHELDIA Speg. — Syll. IX p. 1036.

1. *Rosenscheldia paraguayana* Speg. — Syll. IX, pag. 1036. — Cfr. Speg., Not. synonym. p. 9, in Ann. Mus. Nac. Buen. Ayres 1903, tomo IX. — Huc spectat *Ophioceras Hyptidis* Henn. (1897), teste cl. Spegazzini l. c.

Sect. 4. Phæodidymæ.

DOTHIDEA Fr. — Syll. II p. 639, IX p. 1043, XI p. 377, XIV p. 680, XVI p. 628.

1. *Dothidea papilloideo-septata* P. Henn. Fungi Amaz. II, p. 256. — 2966
— Maculis rotundatis fusco-brunneis, subconcavis; stromatibus hypophyllis sparsis, subatro-carbonaceis, rotundato-pulvinatis, 2-3 mm. diam., ruguloso-verrucosis, ostioliis subacutis; peritheciis immersis, subglobosis; ascis clavatis, apice rotundatis, 8-sporis, 30-50 \approx 7-13; paraphysibus filiformibus; sporidiis oblique monostichis v. distichis oblonge ovoideis v. ellipsoideis, rectis v. subcurvulis, utrinque obtusis, ad basim 1-septatis, constrictis, loculo superiore

majusculo, loculo inferiore subpapillato, ca. 3 μ ., rufo-brunneis, 10-13 \approx 4-5 $\frac{1}{2}$.

Hab. in foliis Sapindaceæ cujusdam Marary, Rio Juruá Amazoniæ. — Sporidiis basi septatis prædistincta species.

2. *Dothidea Centrolobii* P. Henn. Fungi Amaz. II, p. 255. — Ma. 2967

culis fuscidulis vel obsoletis; stromatibus epiphyllis, pulvinatis v. subhemisphæricis, rugulosis, carbonaceis, atro-castaneis, opacis, 1-2 mm. diam.; peritheciis immersis, subglobosis; ascis clavatis, obtusis, 8-sporis, 60-80 \approx 8-13; paraphysibus filiformibus, hyalinis, 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel subovoideis, utrinque rotundatis vel subapplanatis, medio 1-septatis, atro-castaneis, 8-13 \approx 5-7.

Hab. in foliis *Centrolobii* spec. Tarapoto, Perú. — A *Phyl-lachora centrolobiicola* stromatibus rugosis atro-brunneis mox distincta.

3. *Dothidea tubaraoensis* P. Henn. in Hedw. p. 88. — Stromatibus 2968

corticolis, innato-erumpentibus, sparsis vel gregariis confluentibusque, subhemisphærico-pulvinatis, rugosis, atro-fuscis 1-3 mm. diam.; peritheciis immersis, subglobosis; ascis cylindraceo-clavatis, obtusis, octosporis, 70-90 \approx 8-12; paraphysibus copiosis, hyalinis, filiformibus 1,5-2 μ . crassis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, medio 1-septatis, haud constrictis 11-15 \approx 5-7, atro-castaneis.

Hab. in corticibus Leguminosæ cujusdam, Tabarao, St. Catharina Brasilæ (E. ULE).

4. *Dothidea mauaensis* P. Henn. in Hedw. 1904, p. 88. — Maculis 2969

fuscidulis rotundatis; stromatibus hypophyllis superficialibus rotundatis, applanatis v. subglobosis, rugulosis, atro-castaneis subnitentibus vel opacis c. 1-4 mm. diam.; peritheciis immersis subglobosis; ascis clavatis apice rotundatis, 60-90 \approx 12-16; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis vel distichis, ellipsoideis, primo hyalinis, continuis, dein medio 1-septatis, constrictis, brunneis, 8-12 \approx 5-8.

Hab. in foliis Dalbergiaceæ cujusdam, Maua, Rio de Janeiro Brasilæ.

5. *Dothidea orgaosensis* P. Henn. in Hedw. 1904, p. 87. — Maculis 2970

flavidulis explanatis; stromatibus innato-epiphyllis, gregariis, interdum paginam omnino tegentibus confluentibusque, rotundato-pulvinatis, atro-nitentibus, ca. 1 mm. diam.; peritheciis immersis subglobosis; ascis clavatis, apice obtusis, octosporis, 100-150 \approx 9-12;

paraphysibus copiosis hyalinis; sporidiis oblique monostichis, ovoideis, superne rotundatis, medio vel ad basim 1-septatis, constrictis, castaneis 12-17 \times 5-7.

Hab. in foliis *Eugeniæ* spec., Serra dos Argãos, Rio de Janeiro Brasilæ (E. ULE).

6. *Dothidea juruana* P. Henn. Fungi Amaz. III, 1904, pag. 369. — 2971

Maculis subrotundatis vel effusis, fuscidulis; stromatibus gregariis sæpe confluentibus, subcirculatis dispositis v. nervos sequentibus, subhemisphærico-pulvinatis, rugulosis, ca. 150-250 μ ., atris, opacis; peritheciis subglobosis; ascis clavatis, apice rotundatis, paraphysatis, 8-sporis, 55-70 \times 7-10; sporidiis oblique monostichis v. subdistichis, subclavatis, obtusis, primo hyalinis, continuis, dein flavido-brunneolis, medio 1-septatis, 13-15 \times 4 $\frac{1}{2}$ -5.

Hab. in foliis *Ebenacæ* cujusdam Marary, Rio Jurua Amazoniæ (E. ULE).

7. *Dothidea Daphnopsidis* P. Henn. in Hedw. 1904, p. 87. — Maculis 2972

subsanguineis vel obsoletis; stromatibus amphigenis, erumpentis superficialibus, rotundato-lenticularibus vel pulvinatis, rugulosis, atro-nitentibus, punctato-ostiolatis, ca. 2-4 mm. diam.; peritheciis immersis, numerosis, prominulis, ovoideis; ascis clavatis, vertice rotundatis ca. 90-120 \times 12-15, octosporis; paraphysibus copiosis, hyalinis, apice 3 μ . cr.; sporidiis oblique monostichis vel subdistichis oblonge ellipsoideis, primo 2-4-guttulatis, continuis, hyalino-flavidulis dein medio 1-septatis, constrictis, atro-castaneis 13-18 \times 6-7,5.

Hab. in foliis *Daphnopsidis* spec., Tjiuca, Rio de Janeiro Brasilæ (E. ULE).

PHÆODOTHIS Syd. Ann. Mycol. 1904, p. 166 (Etym. *phaïos* ater et *dothis* pro *Dothidea*). — Stromata innata, effusa, subplana, atra; loculi immersi. Asci octospori. Sporidia oblonga, 1-septata, colorata. — A *Dothidella*, cui proxime accedit, differt sporidiis coloratis, nec hyalinis.

1. *Phæodothis Tricuspidis* Syd. l. c. — Stromatibus in utraque folii 2973 pagina conspicuis, maculis pallescentibus indeterminatis insidentibus vel folia tota infecta decolorantibus, sparsis v. sæpe seriatim dispositis confluentibusque, solitariis ellipticis vel oblongis usque 1 mm. longis, confluentibus usque $\frac{3}{4}$ cm. longis, innatis, atris, opacis vel vix subnitentibus; ascis cylindræis, apice rotundatis,

breviter stipitatis, 62-75 \times 9-11, octosporis; sporidiis oblique mono- v. subdistichis, fusiformibus, medio 1-septatis, leniter constrictis, utrinque attenuatis, sed apicibus obtusis, olivaceo-brunneis, 13-17 \times 4 $\frac{1}{2}$ -5.

Hab. in foliis *Tricuspidis latifoliae*, San José, Salta Argentina (P. G. LORENTZ).

2. *Phæodothis caaguazuensis* (Speg.) Syd. = *Dothidella caaguazuensis* Speg. — Syll. IX, pag. 1039. — Sporidia ex hyalino dilute fusca vel chlorina, elongato-clavulata.
3. *Phæodothis effusa* (A. L. Smith) Syd = *Dothidella effusa* A. L. Smith — Syll. XIV, p. 678. — Sporidia fusca.
4. *Phæodothis Yuccæ* (Ell. et Ev.) Sacc. *Dothidea Yuccæ* Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 19. — Hue ducenda est *Phyllachora?* *Yuccæ* Ell. et Ev. — Syll. XIV, p. 670. — Stromatibus amphigenis, folii parenchymate immersis; ascis oblongo-cylindraceis 75-80 \times 10-12; sporidiis biseriatis, ovato-oblongis, luteo-brunneis 1-septatis, 12-15 \times 5-6, ad septa constrictis. Cetera ut in diagnosi Syll. l. c.

Hab. in foliis *Yuccæ angustifoliae*, Maniton, Colorado, Amer. bor. (E. T. HARPER).

HYPOXYLOPSIS P. Henn. Fungi Amaz. II, p. 256 (1904) (Etym. *Hypoxylo* et *opsis* aspectus). — Stromata crasse pulvinata, tuberculata, sublignoso-coriacea, nigricantia. Perithecia immersa ostiolata. Asci cylindracei, 8-spori paraphysati; sporidia ellipsoidea, 1-septata, fusca. — *Plowrightiæ* et *Dothideæ* affinis sed stromata diversa, *Hypoxylo* similima.

1. *Hypoxyloopsis Huræ* P. Henn. l. c. cum icone. — Stromatibus trunciculis, erumpenti-superficialibus, sublignoso-coriaceis, firmis, duris, convexo-pulvinatis, crassis, rugoso-tuberculatis, atrovinosis v. atrofuscis, pruinosis ca. 5 mm. 4 cm. diam., ostiolis subhemisphaericoprominulis, atris; peritheciis immersis, subglobosis vel ovoideis; ascis cylindraceo-clavatis, apice rotundatis, 8-sporis, 70-80 \times 7-10; paraphysibus filiformibus, hyalinis, 2-3 μ . crassis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictis, 8-13 \times 6-8, atro-castaneis; contextu atrovinoso subcoriaceo.

Hab. in truncis emortuis *Huræ* crepitantis, Bom Fim, Rio Juruá Amazoniæ. — Facies *Hypoxyli* sed fabrica dothideacea. Uda succum vinosum exsudat.

MAURODOTHIS Sacc. et Syd. Ann. Mycol. 1904, pag. 166 (Etym. *mauros* nigrita et *dothis* poro Dothidea). — Stromata superficialia v. subsuperficialia, minuta, disciformia, atra; loculi immersi. Asci octospori. Sporidia oblonga, 1-septata, colorata. — A *Phæodothide*, cui sporidiis similis, differt stromate superficiali, disciformi.

1. **Maurodothis Alyxiæ** Sacc. et Syd. l. c. — Stromatibus hypophyl-²⁹⁷⁵lis, superficialibus, aterrimis, concentrice dispositis, centralibus latioribus, applanatis, usque 1 mm. latis, plurilocellatis, periphericis minoribus 1-2-locellatis, omnibus ostiis obtusis nitidis præditis; ascis clavato-saccatis, apice rotundatis, breviter stipitatis, 52-70 \approx 18-28, octosporis; sporidiis distichis vel tristichis, constricto-didymis, utrinque rotundatis, ex hyalino brunneis, 21-24 \times 8-10 $\frac{1}{2}$; paraphysibus filiformibus.

Hab. in foliis *Alyxiæ buxifoliæ*, Australia (R. BROWN). — An *Doth. Alyxiæ* Mass. eadem sit, ob diagnosim insufficientem dubium manet. Genera *Dothideacarum didymospora* ita distinguuntur:

	I. Sporidia hyalina.	II. Sporidia colorata.
Stroma sepius effusum, innatum	<i>Dothidella</i> Speg. <i>Munkiella</i> Speg.	<i>Phæodothis</i> Syd.
Stroma disciforme, superficiale.	<i>Microcycilus</i> Sacc.	<i>Maurodothis</i> Sacc. et Syd.
Stroma innatum, erumpens, pulvinatum.	<i>Rosenscheldia</i> Speg. <i>Plowrightia</i> Sacc.	<i>Dothidea</i> Fr. <i>Roussoella</i> Sacc.

Sect. 5. Hyalophragmiæ.

DARWINIELLA Speg. — Syll. IX p. 1048.

1. **Darwiniella gracilis** Speg. Myc. argent. ser. II, 1902, p. 77. Hue²⁹⁷⁶ duceuda est *Dothidella? gracilis* Speg. — Syll. II, pag. 633. — Sporidiis maturis tandem 3-septatis, 22-24 \times 4-5, ad septa leniter constrictis, utrinque obtusiusculis, hyalinis v. leniter subchlorinis; ascis subcylindræis, 70-80 \times 8-10, paraphysibus paucissimis obvallatis.

Hab. ad folia viva *Acnistis* cujusdam, in dumetis prope Ca-fayate Argentinae.

Sect. 6. Phæophragmiæ.

HOMOSTEGIA Fuck. — Syll. II, p. 649, IX p. 1049, XIV p. 683, XVI p. 631.

1. *Homostegia leucosticta* Pat. in Duss, Enum. Champ. Guadel. 1903, 2977 p. 78. — Stromate orbiculari peridermio immerso, vix emergente, nigro, supra plano, 5 mm. ostiolis late apertis albo-punctato; peritheciis ovoideis, numerosis, 130-160 μ . diam., nucleo albo; ascis cylindraceis, 60-80 \times 12-14, octosporis, copiose filiformi-paraphysatis; sporidiis ovoideis, non constrictis, 10-14 \times 5-7, diu incoloribus, demum fuligineis, 2-3-septatis, loculis guttulam lucidam continentibus.

Hab. in truncis vetustis putridis, Sainte-Rose Guadalupæ (Duss).

RHOPOGRAPHUS Nitschke — Syll. II p. 647, XI p. 378, XVI p. 630.

I. *Eu-Rhopogrophus*.

1. *Rhopogrophus Chamæmori* E. Rostr. Rorske Ascom. 1904, p. 13 2978 (Vidensk. Skrift.). — Stromatibus innatis, gregariis vel confluentibus, nigris, oblongis v. breve lineatis, depressis, minutis; loculis immersis; ascis cylindraceis 100-115 \times 10-12; sporidiis monostichis, oblongo-ellipsoideis initio didymis, hyalinis, dein 3-septatis, flavidis, 18-20 \times 7-10, sæpe utrinque hyalino-appendiculatis.

Hab. in caulibus Rubi Chamæmori, Gjelfos Norvegiæ.

2. *Rhopogrophus caulicola* Oud. Nederl. Kruidk. Arch. 1902, II, 2979 p. 712. — Stromatibus sub epidermide atrata et nitida nidulantibus ex loculis minutis compositis, parenchymaticis impellucidis, longitudinaliter dispositis 2-3 cm. longis 0,5-1 cm. latis, subinde confluentibus, primo levibus, dein colliculosis, loculis inæqualiter dispositis 0,5-1 mm. diam., partim ascigeris, partim pycnidicis; ascis cylindraceis 80-100 \times 7, spurie paraphysatis, octosporis; sporidiis fusoides, curvis, utrinque acutis, 3-septatis, non constrictis 23 \times 3,5 pallide olivaceis; sporulis orbicularibus 2-2,3 μ . diam. melleis.

Hab. in caule Umbelliferæ ejusdam indet., Valkenberg Hollandiæ (J. Rick.).

3. *Rhopogrophus Bakeri* Earle in New York Bot. Gard. 1902, p. 350. 2980 — Stromatibus subsuperficialibus, interdum confluentibus, nigris

1-1,5 mm. long. 350-500 μ . crass.; peritheciis 2-3 in quoque stromate, subprominentibus; ascis cylindraceutis 40-50 \times 8; paraphysibus filiformibus; sporidiis distichis, subcylindraceutis, fuscis 3-septatis, valde constrictis, cellula mediana majore, 16 \times 4.

Hab. in caulibus plantæ ignotæ, Massinga, prope Santa Marta, Columbia, Amer. austr. (C. F. BAKER.).

II. *Rhopographella* P. Henn. Sporidia subhyalina.

4. *Rhopographus Gaduæ* P. Henn. Fungi Amaz. II, p. 257, c. icon. 2981

— Stromatibus culmicolis striiforme erumpentibus, pulvinato-effusis, confluentibus oblonge pulvinatis, crassis, atris, ruguloso-tuberculatis vel rimosis, usque ad 5 cm. longis, ostioliis hemisphærico-prominulis; peritheciis immersis, subglobosis; ascis cylindraceuto-clavatis, apice rotundatis, 8-sporis, 120-160 \times 15-20; paraphysibus filiformibus, fasciculatis, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoides, mucosis, 25-35 \times 5-6, utrinque rostratis, rostro 5-6 \times 2, 3-dein 5-septatis, subconstrictis, hyalino-cyanescentibus.

Hab. in culmis *Gaduæ*, Juruá-Miry, Rio Juruá Amazoniæ.

5. *Rhopographus Gynerii* P. Henn. Fungi Amaz. III, p. 369, 1904, 2982

cum icon. — Maculis fusciculis; stromatibus amphigenis gregariis lineare vel striiforme erumpentibus, epidermide pallida rimosa velatis, ca. 2-2 $\frac{1}{2}$ mm. longis subatris, subhemisphærico-ostioliatis, peritheciis globulosis seriatis; ascis subfusoides-clavatis, 8-sporis, 60 \times 90 \times 10-14; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoides, utrinque subobtusis vel subacutiusculis, 4-guttulatis, dein 3-septatis paullo constrictis, hyalinis, haud flavescentibus, 17-20 \times 3 $\frac{1}{2}$ -4.

Hab. in foliis *Gynerii* saccharoidis, Juruá-Miry, Rio Juruá Amazoniæ.

Sect. 7. Phæodictyæ.

CURREYA Sacc. — Syll. II p. 651, IX p. 1051, XI p. 378, XIV p. 684, XVI p. 632.

1. *Curreya rhoina* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2983

p. 101. — Stromatibus sparsis, erumpentibus, epidermide rupta demum cinetis, subrotundis vel ellipsoideis, plano-convexis, atro-brunneis, 1-1,5 mm. long. et 100-300 μ . alt., intus griseo-flavidis;

peritheciis (loculis) parvis, subsuperficialibus, subglobosis, pallidis, ostiolis punctiformibus, demum umbilicatis, vix emergentibus; ascis cylindricis, apice rotundatis, breve crasse stipitatis, octosporis, $68-86 \approx 8,5-10,5$; sporidiis 1-2-stichis, oblongo-ellipsoideis, rectis, 5-septato-muriformibus, medio profundius constrictis, pallide flavis $15,5-21 \approx 7-8,5$.

Hab. in ramis corticatis *Rhois typalinæ*, Luxemburg. — Forte *Dothiora cellulosa* (Wallr.) Sacc. cum hac specie collidit. Status secundarios describit Feltg. l. c.

Sect. 8. Scolecosporæ.

MYRIOGENOSPORA Atk. — Syll. XIV p. 685.

1. **Myriogenospora Bresadoleana** P. Henn. Fungi blumenavienses II, 2984 in Hedw. 1902, p. 9. — Stromatibus innatis, longe striiformibus atris, usque ad 5 cm. longis, ca. 1 mm. latis; intus pallidis; peritheciis immersis parallelis, ovoideis vix prominulis; ascis cylindraceis, utrinque attenuatis, apice rotundatis, $130-180 \approx 5-7$; sporidiis innumeris conglobatis, longe fusoides-acicularibus, utrinque acutiusculis, pluriguttulatis, hyalinis, $26-38 \approx 1,5-2$.

Hab. in foliis Paspali, St. Catharina Brasilæ austr.

OPHIOOTHIS Sacc. — Syll. II p. 652, IX p. 1051, XIV p. 685, XVI p. 632.

Subgen. *Ophiodothella* P. Henn. Asci apice tenuati, nec subcapitati.

1. **Ophiodothis atro-maculans** P. Henn. Fungi Amaz. p. 258, cum icone. 2985 — Maculis amphigenis effusis atro-crustaceis, stromatoideis, folium plus minus tegentibus, stromatibus gregariis amphigenis, rotundato-pulvinatis, atro-nitentibus, ca. 250-300 mm. diam.; peritheciis paucis vel singularibus, immersis, subglobosis, papillatis; ascis fusoides, apice attenuatis, rotundatis, substipitatis, 8-sporis, $50-70 \approx 5-8$; paraphysibus sparsis filiformibus; sporidiis parallelis, longitudine asci, filiformibus, hyalinis, pluriguttulatis, dein pluriseptatis, $1\frac{1}{2}-2 \mu$. crassis.

Hab. in foliis *Lonchocarp*i sp., Rio Jurua, Marary Amazonæ.

Fam. 5. Coccoideaceæ P. HENN. Hedw. XLIII, 1904, p. 143.

Stromata puncto centrali stipitiformi basi matrici affixa, ceterum libera; viva subcarnosa, sicca subcornea. Loculi pariete proprio distincto carentes. — Peculiari in matrice insertione a Dothideaceis distinguitur familia, quæ ad Myriangiaceas nutat. Genus primum: *Coccoidea* P. Henn. — Syll. vol. XVI p. 624.

Sect. 1. Phæosporæ.

COCCODISCUS P. Henn. in Hedw. 1904, p. 144. (Etym. *coccus* granum et *discus*). — Stromata subcarnosa, discoideo-rotundata, inferne medio substipitato-affixa, atra. Perithecia (loculi) immersa, globulosa. Asci clavati, octospori, paraphysati; sporidia ovoidea, continua, basi papillata, fusca.

1. **Coccodiscus quercicola** P. Henn. l. c. — Stromatibus hypophyllis 2983 sparsis, subcarnosis rotundato-discoideis, inferne medio affixis, margine liberis 1,5-2 mm. diam., atris, superne planis, minute granulatis; peritheciis immersis, globulosis; ascis clavatis, stipitatis, octosporis 60-90 × 14-20; paraphysibus copiosis filiformibus, hyalinis, ca. 1. μ . crassis; sporidiis subdistichis vel conglobatis, interdum oblique monostichis, ovoideis, basi subhyalino-papillatis, 1-guttulatis, atro-fusculis, 8-11 × 5,5-8.

Hab. in foliis vivis *Quercus thalassicæ*, Ushiseyama in prov. Tosa Japoniæ (YOSHINAGA).

Sect. 2. Hyalodidymæ.

YOSHINAGAIA P. Henn. in Hedw. 1904, p. 143 (Etym. a cl. botanico YOSHINAGA japonico). — Stromata e subcarnoso cornea, disciformi-pulvinata, erumpenti-superficialia, medio substipitato-affixa, atra. Perithecia (loculi) immersa, globulosa, subverruciformi-ostiolata. Asci octospori, paraphysati; sporidia fuscoidea, hyalina, 1-septata.

1. **Yoshinagaia Quercus** P. Henn. l. c. — Stromatibus gregarie 2987 epiphyllis, erumpenti-superficialibus, rotundato-pulvinatis, medio affixis, verruculoso-rugulosis, atris, 1 mm. diam.; peritheciis immersis, globulosis; ascis fasciculatis, clavatis, apice rotundatis, tu-

nicatis, octosporis 70-120 \times 13-18; paraphysibus subfiliformibus, ca. 4 μ . crassis, hyalinis; sporidiis subdistichis fusoides vel subclavatis, plerumque 4-guttulatis, acutis, medio 1-septatis (an deinde pluriseptatis?) hyalinis, 20-40 \times 4-8.

Hab. in foliis vivis *Quercus glaucæ*, Kochi, Tosa Japoniæ (YOSHINAGA).

Fam. 6. Microthyriaceæ.

Subfam. 1. Microthyriæ Sacc. et Syd.

Sect. 1. Hyalosporæ.

MYIOCOPRON Speg. — Syll. II p. 659, IX p. 1053, XI p. 379, XIV p. 686, XVI p. 633.

1. **Myiocopron denudans** Rehm, Hedw. 1903. p. (292). — Peritheciis 2988 in utraque foliorum parte gregariis, sessilibus, dimidiato-scutatis, orbicularibus, nigris, ex hyphis radiantibus 3 μ . cr., fuscis, septatis, prosenchymatice contextis, poro haud conspicuo, glabris 100-120 μ . diam.; ascis clavatis, sessilibus, apice rotundatis 35-40 \times 7-8, octosporis; sporidiis elongato-fusoides, rectis, 1-cellularibus, guttulas oleosas 2-4 includentibus, hyalinis, 12-15 \times 2-2,5, distichis; paraphysibus filiformibus, septatis 1,5 μ . diam., apice 3 μ . cr. hyalinis.

Hab. in foliis putridis fagineis in Saxonia (FEURICH), in horto Neufriedenheim Monacensi (Doct. REHM). — Hymenium in hypothecio parenchymatico, hyalino positum atque plene evolutum, perithecio uno latere operculatim subelevato, dein denudatum.

Sect. 2. Phæosporæ.

VIZELLA Sacc. — Syll. II p. 662. IX p. 1054.

1. **Vizella Hieronymi** Wint. — Syll. IX, pag. 1054. — var. **Coffeæ** 2989 Maublanc, Bull. Soc. Mycol. 1904, p. 71, t. VII, f. 6. — Peritheciis superficialibus, epiphyllis, greges minutos formantibus, depresso conoideis, atris, ostiolo minuto pertusis; ascis oblongis, octosporis, paraphysatis, 65 \times 70 \times 12-14; sporidiis inordinatis, oblongis, basi subtenuatis, fuscis, supra medium linea alba notatis, ad basim appendicula brevi, subhyalina ornatis, 13-15 \times 5-6.

Hab. in foliis *Coffeæ* in Mexico (HERRERA). — Observante cl. Maublanc, species et varietas prædictæ ob vittas albas transversas sporidiorum a typo *Vizellæ* forte separandæ.

Sect. 3. Hyalodidymæ.

MICROTHYRIUM Desm. — Syll. II p. 662, IX p. 1055, XI p. 379, XIV p. 687, XVI p. 635.

1. **Microthyrium microscopicum** Desm. — Syll. II, p. 662. — var. 2990
Dryadis Rehm, Ascom. exs. n. 1571, Ann. Mycol. 1904, p. 520.
 — Peritheciis in maculis fuscidulis insidentibus, epiphyllis, 70-90 μ . diam., poro pertusis, hyphis rectangulariter ramosis, septatis, 3-4 μ . cr., interdum hyphopodia oblonga vel triloba, continua 6 \times 4-5 gerentibus cinctis; ascis oblongo-piriformibus 25 \times 7-8, octosporis filiformi-paraphysatis: sporidiis oblongis, utrinque obtusis, medio subconstricto-1-septatis, 8 \times 2-2,5, distichis, strato tenui mucoso obvolutis.

Hab. in foliis adhuc pendulis *Dryadis octopetalæ* in Alpibus bavaricis.

2. **Microthyrium Uvariæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 47. 2991
 — Peritheciis epiphyllis, sparsis, discoideis, atris, membranaceis, rugulosis, 0,3-0,6 cm. diam., lobato-rimosis, contextu radiato-cellulosis, fusco-brunneis; ascis ovoideis vel ellipsoideis, vertice rotundatis, truncatis, octosporis, 35-50 \times 25-30; sporidiis ellipsoideis vel oblonge ovoideis, rectis vel curvulis, utrinque rotundatis, 1-septatis, intus granulosi, 18-24 \times 8-10.

Hab. in foliis *Uvariæ Kirchii*, Dar-es-Salam-Zanzibar Africae orient.

3. **Microthyrium Styracis** Starb. in Arkiv. för Botan. 1904, Band 2, 2992
 p. 12. — Peritheciis sparsis v. sparse gregariis, interdum nonnullis confluentibus, maculas non efformantibus, scutellatis, orbicularibus, centro pertusis, margine inæquali v. irregulariter lobulato, nigris, trans lucem fuligineis, contextu reticulato-prismatico, 100-200 μ . diam., ascis late clavatis, sursum fere truncatis, 31-38 \times 5,5-7,5; sporidiis octonis distichis, clavulatis, primo guttatis, dein supra medium 1-septatis, loculo sup. rhombiformi, acutiusculo, inf. cylindrico-clavulato, obtusiusculo, hyalinis 11-12 \times 4,5-5; paraphysibus nullis.

Hab. ad folia *Styracis*, Piratiny, Rio Grande do Sul. Brasilæ.

4. **Microthyrium Hederae** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2993 1903; pag. 310. — Peritheciis sparsis, sessilibus, applanato-hemisphaericis 200-250 μ . diam., nigricantibus, poro pertusis, radiato-contextis, margine vix fimbriatis; ascis oblongo-ellipsoideis, utrinque rotundatis 40-50 \times 10-11, octosporis; sporidiis distichis, cylindraceis, utrinque rotundatis 2-4-guttulatis, continuis (an semper?), hyalinis 10 \times 2,7-3,5.

Hab. in ramulis corticatis, emortuis Hederae Helicis, Luxemburg. — Paraphyses non observatae.

5. **Microthyrium Melaleucæ** P. Henn. in Hedw. 1903, pag. (78). — 2994 Peritheciis amphigenis, dimidiato-scutellatis, atris, 0,3-0,7 mm. diam., radiato-cellulosis; ascis ovoideis, apice tunicatis, rotundatis, basi curvulis attenuatis, 8-sporis, 16-20 \times 7-8; sporidiis clavatis v. oblonge ovoideis, 1-septatis, haud constrictis, hyalino-chlorinis 8-10 \times 2-2,5.

Hab. in foliis coriaceis Melaleucæ Leucadendri, Barron M. Queensland Australiae (PRITZEL).

6. **Microthyrium Eucalypti** P. Henn. F. Austral. occ. II, in Hedw. 2995 1901, p. 352. — Maculis nullis; peritheciis amphigenis, sparsis, mycelio repente, filis brunneolis, brevibus, subtorulosis ca. 3-4 μ . cr. circumdatis, dimidiato-subpulvinatis, orbicularibus, atro-castaneis, punctulatis, 250-300 μ . diam., centro obtuse subostiolatis, pertusis, dein subtrilobato dehiscentibus; ascis clavatis, apice obtuse rotundatis, basi attenuato-substipitatis, octosporis, 80-100 \times 18-22; sporidiis subdistichis, mucosis, fusoides, utrinque subacutiusculis, medio 1-septatis, hyalinis vel minute flavidulis, 20-25 \times 4-5,5.

Hab. in foliis vivis Eucalypti santalifoliae prope Cranbrook Australiae occid.

7. **Microthyrium cantareirense** Henn. in Hedw. 1902, pag. 300. — 2996 Peritheciis orbiculari-scutellatis, epiphyllis, gregariis, contextu atro-membranaceo, radiato, poro pertusis, 300-350 μ . diam., radiatim rimosis, hyphis fuscis, septatis 3,5-4,5 μ . circumdatis; ascis oblonge ellipsoideis vel clavatis, apice obtuso-rotundatis, crasse tunicatis, octosporis, 60-75 \times 20-35; sporidiis subdistichis, ovoideis, 1-septatis, valde constrictis, hyalinis, dein fuscidulis 20-24 \times 13-15.

Hab. in foliis Myrtaceæ ejusdam, Serra da Cantareira, pr. S. Paulo Brasiliæ.

8. **Microthyrium Coffeæ** P. Henn. Notizbl. bot. Gart. Berl. 1903, 2997 p. 240. — Peritheciis epiphyllis, sparsis, dimidiato-scutatis, mem-

branaceis, rugulosis, medio elevato-applanatis, atris, radiato-cellulosis vel reticulatis, 0,5-0,7 μ . diam.; ascis ovoideis vel clavatis, apice rotundatis, crasse tunicatis, 8-sporis, 58-65 \times 25-40, paraphysatis; sporidiis subdistichis vel conglobatis, oblongis, utrinque obtuse rotundatis, curvulis, intus granulatis, hyalinis, medio 1-septatis, haud constrictis, 30-40 \times 10-12.

Hab. in foliis vivis *Coffeæ libericæ*, Ngomini in Africa or. (ZIMMERMANN). — Sporidiis magnis prædistincta species, quæ nonnullis notis ad *Clypeolum megalosporum* nutat.

9. **Microthyrium Platani** Richon. — Syll IX, p. 1061 (nomen) — secundum Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 310: — Peritheciis subgregariis plano-convexis, poro minuto pertusis, radiato-contextis, margine non fimbriatis, 100-130 μ . latis; ascis clavatis, sessilibus, 40-48 \times 5-7; sporidiis 2-3-stictis, ovoideo-fusiformibus, sæpe inæquilateralibus, eguttulatis, 8-10 \times 2,5-3,5.

Hab. in foliis et petiolis *Platani* orientalis, Luxemburg.

10. **Microthyrium Harrimani** Saccardo, Harrim. Alaska Exped. Crypt. p. 26, pl. II, fig. I. — Peritheciis densiuscule gregariis, superficialibus, dimidiatis, omnino applanatis, orbicularibus, 350-450 μ . diam., subinde binato-approximatis, ostiolo centrali pertusis, margine fimbriatis, contextu distincte parenchymatico, radiato; ascis tereti-fusoideis, utrinque obtusulic, 80-100 \times 9-10, octosporis; paraphysibus parvis, sæpe furcatis; sporidiis 2-3-stichis, clavato-fusiformibus, utrinque acutiusculis, infra medium 1-septatis, non constrictis hyalinis.

Hab. in squamis morientibus strobili *Tsugæ heterophyllæ* Orca Alaska (TRELEASE). — Affine *M. Abietis* Mont.

11. **Microthyrium abnorme** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 65. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, subradiato-cellulosis, atro-olivaceis, medio ruguloso-papillatis, margine tenue membranaceis, ca. 1 mm. diam.; ascis oblonge clavatis, curvulis vel rectis, apice rotundato-tunicatis, basi breve stipitatis, 4-8-sporis, 150-180 \times 15-30; sporidiis subdistichis oblonge clavatis, rectis vel curvulis, continuis, dein medio septatis, 30-40 \times 10-14, hyalinis.

Hab. in foliis coriaceis arboris cujusdam, Marary, Rio Juruá Amazoniæ.

12. **Microthyrium Carludovicæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 66. — Maculis mycelii fuscis effusis vel obsoletis; peritheciis epiphyllis, sparse gregariis, dimidiato-scutellatis, atris, ra-

diato-cellulosis, medio papillatis, ca. 200-250 μ .; ascis clavatis, apice rotundatis, fasciculatis, 8-sporis, 35-45 \approx 3 $\frac{1}{2}$ -4; paraphysibus copiosis, filiformibus, hyalinis obvallatis; sporidiis oblonge fusoides, subacicularibus, utrinque obtusis vel subacutiusculis, medio 1-septatis, vix constrictis, hyalinis, 8-10 \approx 2-2 $\frac{1}{2}$.

Hab. in foliis Carludovicæ spec., Rio Juruá Amazoniæ.

PEMPHIDIUM Mont. — Syll. II p. 670, IX p. 1054.

1. *Pemphidium bomulense* P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 3002

— Maculis pallidis explanatis; peritheciis sparsis amphigenis, innato-superficialibus, subscutellatis, ostiolatis, pertusis, atris, subnitentibus, ca. 120-130 μ . diam.; ascis fasciculatis, apapophysatis, oblonge fusoides, utrinque attenuatis, octosporis 50-60 \approx 4-5,5; sporidiis subdistichis, oblonge fusoides vel subclavatis, utrinque acutiusculis, 3-guttulatis, an deinde septatis? hyalinis, 15-25 \approx 2,5.

Hab. in foliis Berliniæ?, Bomule, Ost-Usumbara, Africae orient. (ZIMMERMANN).

POLYSTOMELLA Speg. — Syll. IX p. 1063, XVI p. 639.

1. *Polystomella aphanes* Rehm, Hedw. XLIV, 1905. — Stromatibus 3003

dispersis, sessilibus, dimidiatis, lentiformibus, 0,2-0,4 mm. d., poris minutissimis creberrimis punctiformibus pertusis, nigris, versus marginem radiatim contextis; ascis piriformibus, sessilibus, ad apicem valde incrassatis, 40-45 \approx 12-15, 8-sporis; sporidiis clavatis, medio septatis et subconstrictis, strato mucoso obductis, hyalinis, 12-14 \approx 3, distichis; paraphysibus ramosis.

Hab. ad ramulum corticatum? Tubarao Brasilæ (ULE). — Tantum sub microscopio ut *Polystomella* recognoscenda species.

Sect. 4. Phæodidymæ.

SEYNESIA Sacc. — Syll. II p. 668, IX p. 1064, XI p. 381, XIV p. 689, XVI p. 639.

1. *Seynesia juruana* P. Henn. Fungi Amaz. III, 1904, p. 376, cum 3004

icon. — Peritheciis in maculis subrotundatis, hypophyllis, sparsis vel gregariis, dimidiato-scutellatis, medio subpapillatis, atris, radiato-cellulosis, margine fimbriatis; hyphis fuscis, septatis, ramosis 4-6 μ . crassis, hyphopodiis subalternis, capitatis, interdum lo-

batis ca. 12-15 \times 5-8; ascis oblonge clavatis, obtusis tunicatis, 8-sporis, paraphysatis, 100-120 \times 22-26; sporidiis subdistichis, oblonge ovoideis, primo hyalinis, cellula superiori intus granulata, dein fuscis, basi hyalino-subpapillatis, 25-28 \times 9-12.

Hab. in foliis Caseariæ sp. Juruá-Miry, Rio Juruá Amazoniæ.

2. **Seynesia marmellensis** P. Henn. Fungi Amaz. III, 1904, p. 375. 3005
— Peritheciis hypophyllis sparsis vel gregariis, dimidiato-scutellatis, atris, radiato-cellulosis, medio subpapillatis vel pertusis, ca. 250-300 μ . diam., margine hyphis radiantibus, subramosis, fuscis; ascis clavatis, tunicatis, 8-sporis 40-70 \times 15-25, subparaphysatis; sporidiis subdistichis v. subconglobatis, ovoideis, medio 1-septatis, constrictis, atris, 14-22 \times 7-10.

Hab. in foliis Sweetiæ nitentis, Marmellos, Rio Madeira Amazoniæ.

3. **Seynesia Melastomataceæ** P. Henn. in Hedw. 1902, p. 300. — Ma- 3006
culis atris; peritheciis epiphyllis, aggregatis convexo-scutellatis, subcoriaceis, centro papillatis, dein irregulare apertis, stellato-rimosis, ca. 140-160 μ . diam., contextu radiato, fusco-atro, margine hyphis repentibus fuscis, septatis 3-4 μ . cr. circumdatis; ascis ovoideis rotundatis, crasse tunicatis, 40-50 \times 20-28, octosporis, conglobatis ellipsoideo-ovoides, 1-septatis, hyalino-fusculis, dein constrictis, 17-20 \times 6-7.

Hab. in foliis Melastomatis, Campos de Agna Branca, pr. S. Paulo Brasiliæ.

4. **Seynesia Humiriæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3007
p. 65. — Maculis mycelii amphigenis, radiato-effusis, hyphis septatis subtorulosis, ramosis, atro-brunneis, 3-4 μ . crassis; conidiis fusoides, castaneis, 4-5-septatis, paullo constrictis, 30-40 \times 4-5; peritheciis dimidiato-scutellatis, medio papillatis, contextu radiato-cellulosis, longitudinaliter rimosis, 200-250 μ . diam.; ascis subglobosis, apice tunicatis, 8-sporis, 40-50 μ .; sporidiis conglobatis, ovoideis, medio 1-septatis, valde constrictis, aterrimis, granulato-verrucosis, 18-23 \times 10-13.

Hab. in foliis Humiriæ floribundæ, Pontenegro, Rio Negro Amazoniæ.

5. **Seynesia petiolicola** P. Henn. in Hedw. 1903, p. (78). — Perithe- 3008
ciis aggregatis, scutellatis, atris, radiato-cellulosis, pertusis, ca. 200-350 μ . diam.; ascis oblonge ovoideis, apice rotundatis, crasse tunicatis, octosporis, 30-35 \times 10-13; sporidiis conglobatis, ellipsoi-

deis vel ovoideis, utrinque rotundatis primo hyalinis, continuis, granulatis, dein medio 1-septatis, fuscis, $8-10 \approx 5-6$.

Hab. in petiolis foliorum *Dysoxylum* spec., Eumundi, South Queensland Australiæ (PRITZEL).

6. *Seynesia submegas* P. Henn. Fungi Amaz. III, 1904, p. 374, cum 3009
icon. — Maculis mycelii subrotundatis, fuscis, epiphyllis; peritheciis gregariis, dimidiato-scutellatis, medio subpapillatis, atris, radiato-cellulosis, ca. $200-250 \mu$. diam., hyphis fuscis, ramosis, septatis, radiatim circumdati; hyphopodiis alternis, ovoideis, ca. 10μ .; ascis ovoideis, crasse tunicatis, 4-8-sporis, $50-65 \approx 40-50$; sporidiis conglobatis, oblonge ovoideis, obtusis, medio 1-septatis, valde constrictis, atris, $26-36 \approx 18-25$.

Hab. in foliis *Guarea* spec., Juruá-Miry, Rio Juruá Amazoniæ.

7. *Seynesia Hammariana* P. Henn. in Hedw. 1902, p. 301. — Maculis 3010
nullis; peritheciis epiphyllis, interdum hypophyllis sparsis v. gregariis, discoideo-scutellatis, rotundatis, magnis, 1-2 mm. diam., atris, centro rugulosis, contextu subcorneo, radiato, atro-fusco, cærulescente, margine crenulatis, haud hyphoideis, deinde stellatim lobato-rimosis; conidiophoris gregariis, inter perithecia, hyalinis, $10-14 \approx 4$; conidiis acrogenis ovoideis vel subellipsoideis, continuis, atro-castaneis, medio pellucide porosis, $20-35 \approx 20-30$; ascis ovoideis vel subgloboso-ellipsoideis, 4-8-sporis, $40-60 \approx 40-50$; sporidiis ovoideis vel ellipsoideis, medio 1-septatis, paullo constrictis, hyalino-fusculis, $20-30 \approx 16-20$, conglobatis.

Hab. in foliis *Coccolobæ*? S. Catharina Brasilæ (A. HAMMAR).

8. *Seynesia fusco-paraphysata* P. Henn. in Engl. Bot. Jahrb. 1903, 3011
p. 48. — Peritheciis hypophyllis, sparsis, subcorneis, dimidiato-scutellatis, atris, margine fimbriatis, 1-1.5 mm. diam., centro ruguloso-papillatis, dein rimosis; ascis clavatis, apice rotundatis, octosporis, $80-90 \approx 28-32$; paraphysibus basi ramosis, filiformibus, ca. 3μ . cr., septatis, apice clavatis, fuscis, $4-4.5 \mu$. cr.; sporidiis subdistichis, oblongis v. clavatis, utrinque rotundatis, medio 1-septatis, valde constrictis, mox in cellulas secedentibus, atris, $20-30 \approx 10-13$.

Hab. in foliis *Tabernaemontanae* spec., West-Usambara Africae orient.

9. *Seynesia Banksiæ* P. Henn. in Hedw. 1903 (p. 78). — Maculis 3012
fuscis rotundatis v. confluentibus; peritheciis epiphyllis gregariis, scutellatis, radiato-cellulosis, atris, longitudinaliter lobato-dehiscen-

tibus ca. 180-222 μ . diam.; ascis ovoideis vel clavatis, apice late rotundatis, octosporis, 50-80 \times 15-22; sporidiis distichis v. conglobatis, ovoideis vel subellipsoideis, 1-septatis, constrictis, olivaceofuscis 13-18 \times 7-9.

Hab. in foliis Banksiæ, Höhen prope Gosford N. S. Wales Australiæ (PRITZEL). — Sec. cl. Mac Alp. in Proc. Linn. Soc. N. S. Wales 1903, p. 563, adsunt paraphyses stipatæ, filiformes, hyalinæ, valde ramosæ. — In foliis Banksiæ ornata, Dimboola Desert in Victoria Australiæ (READER).

10. *Seynesia megas* Rehm — Syll. XVI, p. 640. — var. *macrospora* 3013
Starb. in Arkiv. för Botan. 1904, II, p. 13. — Ascis 114 \times 25; sporidiis majoribus, loculo superiore rhomboideo, guttula una magna globulosa foeto, loculo inferiore angustiore, apice rotundato 32 \times 20 (parte sup.) \times 12 (p. inf.).

Hab. in foliis plantæ indet. Matto Grosso Brasiliæ (LINDMAN).
— Hæc forma, verisimiliter, a typo est specificè distinguenda.

11. *Seynesia coccoidea* P. Henn. F. javanici novi, in Hedw. 1902, 3014
p. 141. — Peritheciis amphigenis, sparsis, dimidiato-scutellatis, margine subfimbriatis, vertice gibboso, atris 1-2,5 mm. diam., intus flavidis subcarnosulis, mycelio fusco-brunneo ex hyphis septatis, 3-3,5 μ . cr.; ascis ovoideis ca. 20 \times 15 octosporis, utrinque obtusis; sporidiis ovoideis, obtusis 10-12 \times 5-6, flavidis.

Hab. in foliis Bambusæ spec. in insula Java.

Sect. 5. Hyalophragmiæ.

MICROPELTIS Mont. — Syll. II p. 669, IX p. 1069, XI p. 381, XIV p. 690, XVI p. 642.

1. *Micropeltis Rollinæ* P. Henn. in Hedw. 1904, p. 84. — Perithe- 3015
ciis aggregatis, superficialibus, crustaceo-maculiformibus in poris ca. 1 mm. diam. confluentibusque atris, primo subpulvinatis, ca. 100 μ . diam., poro pertusis, dein subcupulatis, contextu subradiante celluloso, atro-cinnamomeo; ascis clavato-fusoideis, apice tunicatis, attenuatis, 20-30 \times 5-7 octosporis; paraphysibus copiosis obvallatis, filiformibus, hyalinis, ca. 1-1,5 μ . cr.; sporidiis parallelis aciculari fuscoideis, utrinque acutis, rectis vel flexuosis, hyalinis, pluriguttulatis vel obsolete pluriseptatis, 15-20 \times 2-2,5.

Hab. in foliis Rolliniæ emarginatæ, Laguna pr. St. Catharina Brasiliæ (E. ULE).

2. **Micropeltis Xylopiæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3016 p. 66. — Peritheciis epiphyllis, sparsis, dimidiato-scutellatis, atris, radiato-cellulosis, medio subpapillatis, atro-fuscis 240-300 μ . diam.; ascis clavatis, apice crasse tunicatis, octosporis, 40-50 \times 8-12; sporidiis sub-di- vel sub-tristichis, cylindraceis, utrinque obtusis, 3-5-septatis, constrictis, 14-20 \times 3,5-4,5, hyalinis.

Hab. in foliis Xylopiæ, Rio Juruá Amazoniæ.

3. **Micropeltis erysiphoides** Rhem, Hedw. XLIV, 1904, pag. 1. — 3017 Peritheciis hypophyllis, subgregariis, dimidiatis, poro centrali per-tusis, atris, glabris, parenchymatice versus marginem hyphis ra-diantibus contextis, 200 μ . diam.; ascis clavatis, 50-55 \times 8-9, 8-spo-ris; sporidiis clavatis, 3-septatis, hyalinis, 15 \times 2-2,5, distichis; pa-raphysibus tenerrimis, ramosis.

Hab. ad folia Malpighiaceæ, Cabo Frio Brasilæ (ULÆ). —
Habitus *Erysiphe*s et ægre detegenda.

4. **Micropeltis Scheffleri** P. Henn. Fungi Afr. Orient. II, in Bot. 3018 Jahrb. XXVIII, p. 38. — Peritheciis hypophyllis, raro epiphyllis, dimidiato-scutatis, applanatis, atris, margine subintegris, cen-tro radiato-dehiscentibus 300-400 μ . diam., contextu membranaceo-parenchymatico; ascis clavatis, apice obtuso-rotundatis, crasse tu-nicatis, ca. 80-110 \times 22-30, octosporis, aparaphysatis; sporidiis conglobatis, oblonge fusoides vel clavatis, 10-11-septatis, 60-90 \times 7-9; cellulis cuboideis, constrictis, ca. 8 μ . diam. subseceden-tibus.

Hab. in foliis Flacourtiacæ cujusdam, Usambara (SCHEFF-FLER).

5. **Micropeltis manaosensis** P. Henn. Fungi Amaz. III, 1904, p. 377, 3019 cum icon. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, rotundatis, atris, 130-160 μ . diam., radiato-cellulosis, fusco-brun-neis, margine fimbriatis, subpallidis, medio subpapillatis; ascis cla-vatis, apice rotundatis, 8-sporis, 30-40 \times 11-15; sporidiis subdisti-chis v. conglobatis, oblongis v. clavatis, rectis v. curvulis, utrinque rotundatis, primo 1-dein 2-3-septatis, subconstrictis, guttulatis, 10-13 \times 3-3 $\frac{1}{2}$.

Hab. in foliis Myrtacæ cujusdam, Manaos, Rio Negro Amer. merid.

6. **Micropeltis Garciniæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 3020 — Peritheciis epiphyllis, sparsis, dimidiato-scutellatis, atris, mar-gine hyalino, radiato-fimbriatis, rugulosis, ca. 250-300 μ . diam., contextu radiato-celluloso; ascis clavatis, apice rotundato-tunicatis,

octosporis, 40-50 \times 10-12, apapaphysatis; sporidiis clavatis, obtusis 3-4-septatis, constrictis, 15-20 \times 3,5-4 hyalinis.

Hab. in foliis Garciniae spec., Ost-Usambara Africae orient.

7. *Micropeltis distincta* P. Henn. in Engl. Bot. Jahrb. 1901, p. 257. 3021

— Sacc. Syll. XVI, pag. 1141 (nomen). — Peritheciis epiphyllis v. hypophyllis, sparsis, orbiculari-scutatis, depressis, tenui-marginatis, olivaceo-fuscis, radiato-reticulatis, 180-250 μ . diam.; ascis clavatis, vertice rotundatis, tunicatis, basi attenuatis, 4-8-sporis, 35-65 \times 20-28; sporidiis conglobatis, oblonge clavatis 3-9-septatis, 25-50 \times 4-5, hyalinis; paraphysibus fasciculatis, filiformibus, dichotomis 30-60 \times 1-1,5.

Hab. in foliis Tricalysiae Nyassae ex Rubiaceis, Konde-land sup. Africae orient.

8. *Micropeltis coffeicola* P. Henn. in Hedw. 1902, p. (63). — Perithe- 3022

ciis epiphyllis, sparsis, dimidiato-scutellatis, atris, margine tenui subhyalino, 200-250 μ . diam., contextu pseudoparenchymatico brunneo; ascis clavatis, apice obtuse rotundatis, basi attenuato-curvulis 2-8-sporis, 26-36 \times 12-18; sporidiis conglobatis fusoides v. clavatis, utrinque obtusiusculis, rectis v. curvulis, 3-6-septatis, haud constrictis, hyalino-cyanescentibus, 18-30 \times 3,5-5.

Hab. in foliis vivis Coffee arabicae, Chocola, Guatemala (PREUSS).

9. *Micropeltis Schmidtiana* Rostr. in Bot. Tidsskrift-Copenhagen 1902, 3023

vol. 24, p. 211. — Peritheciis dimidiato-scutatis, orbicularibus, convexulis, tabacinis, epiphyllis, ambitu plano membranaceis; ascis fasciculatis, fusiformibus, 50-52 \times 10-12; paraphysibus filiformibus, obvallatis, octosporis; sporidiis anguste fusoides, hyalinis, 5-7-septatis, 20-25 \times 5.

Hab. in foliis Apostasiae Lobbia, Siam Asiae merid.

10. *Micropeltis aureo-brunnea* P. Henn. Fungi Amaz. III, 1904, p. 378, 3024

cum icon. — Peritheciis hypophyllis, sparsis vel gregariis, dimidiato-scutellatis, rotundatis, primo flavo-brunneis, dein castaneis, ca. 280-320 μ . d., contextu radiato-celluloso, aureo-brunneo, dein rufo-brunneo vel subolivaceo, margine pallidiori pellucido; ascis fusoides, subapiculatis, 8-sporis, 33-40 \times 8-11; paraphysibus filiformibus, hyalinis, ca. 0,8 μ . crassis; sporidiis oblique monostichis vel subdistichis, fusoides, rectis vel curvulis 3- interdum 2-septatis, hyalino-cyanescentibus, 13-18 \times 2 $\frac{1}{2}$ -3 $\frac{1}{2}$.

Hab. in foliis Trichomanis sp. Juruá-Miry Rio Juruá Amazoniae.

ACTINIOPSIS Starb. — Syll. XVI p. 543. — *Asteropeltis* P. Henn. Hedw. XLIII pag. 380. — Genus, observante cl. Hennings, ad *Microthyriaceas* nec *Sphaeriaceas* adscribendum et ita definiendum: Perithecia membranacea dimidiato-scutata, suborbiculata medio pertusa, margine appendiculis rigidis rectis ex hyphis conflatis vestita. Asci fusoides vel clavati 8-spori, paraphysati; sporidia cylindracea, pluriseptata, hyalina. *Micropelti* et *Scolecopelti* affinis.

1. **Actiniopsis Ulei** P. Henn. Hedw. XLIV, p. 66, *Asteropeltis Ulei* P. 3025 Henn. Hedw. XLIII, p. 381 = *Asteropeltis mirabilis* Rehm, Hedw. XLIV, p. 3. — Peritheciis epiphyllis sparsis, subdimidiato-scutatis, subrotundatis, atris, membranaceo-cellulosis, poro pertusis, ca. 180-200 μ . diam., margine tenuissimo, subhyalino, appendiculis rigidis in sicco erectis, in vivo stellato-explanatis, atris, 100-250 \times 60, ex hyphis septatis, fuscis sursum acutis pallidioribus laxè conflatis; ascis oblonge fusoides, apice crasse tunicatis rotundatis, curvulis vel rectis, 8-sporis, 70-100 \times 11-17, subsessilibus; paraphysibus filiformibus, flexuosis, basi ramosis, 1-1 $\frac{1}{2}$, hyalinis; sporidiis oblique monostichis vel subdistichis, oblonge cylindraceis, obtusis, flexuosis vel rectis, 7-septatis, subconstrictis, hyalinis, 45-50 \times 3 $\frac{1}{2}$ -4.

Hab. in foliis Calathææ, Blumenau et Orthocladæ varifloræ, Jurua Miry, Rio Jurua Brasilæ. — Sec. cl. Rehm sporidia 9-11-septata, tristicha, 40-45 \times 4-4.5, basim' versus acutata.

2. **Actiniopsis juruensis** P. Henn. Fungi Amaz. IV, in Hedw. 1904, 3026 XLIV, pag. 66. — Peritheciis sparsis, epiphyllis, subturbinato-scutellatis, fusciculis, medio pertusis, cellulosis, 300-500 μ . diam., ad marginem appendiculis plurimis, rigidis, squarrosis, apice fimbriatis, pallidis, 100-150 μ . longis, ex hyphis laxè conflatis; ascis oblonge clavatis, apice rotundatis, tunicatis, paraphysatis, octosporis 90-100 \times 13-15; sporidiis subtristichis, longe fusoides vel filiformibus, apice subacutiusculis, 8-12-septatis, constrictiusculis 40-60 \times 3-4.

Hab. in foliis Marantaceæ cujusdam, Rio Jurua Amazoniæ.

TRICHOPELTIS Speg. — Syll. IX p. 1068.

1. **Trichopeltis ferruginea** Rehm, Hedw. XLIV, p. 1. Ita vocanda *Calonectria ferruginea* Rehm — Syll. XVI, p. 595. — var. **Psychotriæ** Rehm, Hedw. XLIV, p. 1. — Maculis mycelii 1 mm. diam.; peritheciis solitariis; ascis fusoides 45-50 \times 12-15; sporidiis fusiformibus, utrinque obtusis, 3-septatis, 18-20 \times 5, tristichis.

Hab. in foliis *Psychotriæ* et *Calathææ* pr. Blumenau Brasilæ (ULE).

2. *Trichopeltis oblecta* Rehm, Hedw. XLIV. Ita vocanda *Calonectria oblecta* Rehm — Syll. XVI, p. 595.

ULEOPELTIS P. Henn. Fungi Amaz. II, p. 267 (1904) (Etym. a cl. E. ULE, generis detectore et strenuo Brasilæ, innumerorum mycetum collectore). — Stromata superficialia, dimidiato-scutellata, subcarbonacea, atra. Perithecia in stromate immersa, rimis subconcentricis dehiscentia. Asci clavati, 8-spori, paraphysati; sporidia oblonge fusoidea vel linearia, hyalina, pluriseptata. — Genus, quoad locum systematicum, adhuc dubium.

1. *Uleopeltis manaosensis* P. Henn. l. c. cum icon. — Stromatibus 3028 epiphyllis, sparsis superficialibus, e suborbiculari dimidiato-scutellatis, vertice interdum obtuse papillatis, rugulosis, atro-subcarbonaceis, rima subconcentrice vel irregulariter dehiscentibus, 1-2 mm. diam., hyphis radiantibus, ramosis, fuscis, 3-4 μ . crassis circumdatis; ascis oblonge clavatis, vertice tunicatis, rotundatis, 8-sporis, basi substipitatis, 85-120 \times 10-12; paraphysibus filiformibus, hyalinis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis, oblonge fusoideis vel linearibus, subobtusis, rectis vel flexuosis, 3-6-septatis, hyalinis, 30-55 \times 3 $\frac{1}{2}$ -4 $\frac{1}{2}$.

Hab. in foliis Palmæ cujusdam (*Chamædoreæ*?) Manaos, Rio Negro Amazoniæ.

Sect. 6. Phaeophragmiæ.

PHÆOSCUTELLA P. Henn. Fungi Amaz. III 1904, p. 382 (Etym. *phaios* fuscus et *scutella*, ob sporidia phæphragmia). — Perithecia subdimidiato-scutellata, tenue membranacea, subfibrosa, fuscidula pellucida, sine structura cellulosa. Asci ellipsoidei vel ovoidei, 8-spori, paraphysati; sporidia parallele conglobata, cylindracea, pluriseptata, fusca.

1. *Phæoscutella Gynerii* P. Henn. l. c. cum icon. — Peritheciis am- 3029 phigenis sparsis v. aggregatis, subdimidiato-scutellatis, atro-fuscis, tenue membranaceis, subfibrosis, structura vix cellulosa, fusco-brunneola, hyphis mycelii fuscis permixtis, 0,5-1 mm. diam.; conidiis fusoideis, fuscis, pluriseptatis, 20-30 \times 5-7; ascis oblonge ellipsoideis, interdum subovoideis, rotundatis, 30-50 \times 15-25, 8-spo-

ris, aparaphysatis; sporidiis parallele conglobatis, cylindraceis, obtusis, rectis vel curvulis, 5-8-septatis, constrictis, castaneo-fuscis, dein atris, ca. 22-45 \times 5-6.

Hab. in foliis *Gynerii* saccharoidis, Rio Juruá, Juruá-Miry Amazoniæ.

Sect. 7. Phædictyæ.

PHÆOSACCARDINULA P. Henn. Fungi Amaz. IV in Hedw. 1905, pag. 66 (Etm. *phaios* fuscus, quasi *Saccardinula* phædictya). — Perithecia superficialia (phylogena) scutellato-dimidiata, contextu subradiato-celluloso, fusco. Asci subovoidei, 8-spori, paraphysati. Sporidia oblonge cylindracea, pluriseptata, muralia, fusca. — A *Saccardinula* Speg. ascis paraphysatis, sporidiis fuscis etc. diversa. In Tabulis comparativis (Syll. XIV pag. 25) occupabit n. 19, inter Microthyriaceas.

1. **Phæosaccardinula diospyricola** P. Henn. l. c. p. 67, cum icon. — 3030 Peritheciis epiphyllis, superficialibus, sparsis, dimidiato-scutellatis, hyphis fusciculis simplicibus circumdatis, medio subpapillatis, pertusis, subradiato-cellulosis, fuscis, ca. 280-300 μ . diam.; ascis ovoideis vel late clavatis, rotundatis, octosporis, 55-75 \times 35-40; paraphysibus copiosis, filiformibus, hyalinis; sporidiis conglobatis, longe cylindraceis, utrinque obtuse rotundatis, 7-13-septatis, interrupte muralibus, 35-60 \times 7-10, fuscis.

Hab. in foliis *Diospyri*, Tarapoto, Rio Amazonas.

Sect. 8. Scolecosporæ.

OPHIOPELTIS d'Almedia et da Camara in Revista Agronomica 1903, vol. I n. 5, pag. 175 (Etm. *ophis* anguis et *pelle* scutum). — Perithecia submembranacea, dimidiato-scutata, superficialia, centro perforata. Asci subcylindracei, aparaphysati, oligospori (trispори); sporidia vermicularia, ascos subæquantia, multiguttata, hyalina. — Ab affini *Scolecopelte* differt sporidiis non articulatis.

1. **Ophiopeltis Oleæ** d'Alm. et da Cam. l. c., tab. X, fig. 8-10. — 3031 Peritheciis peltatis, atris, ostiolo distincto impressoque, 200-300 \times 80-100; ascis subcylindraceis, in stipitem brevem attenuatis, apice rotundatis 38-50 \times 12-15 trisporis (jugiter?); sporidiis vermiformibus, obtusiusculis, plerumque curvulis, hyalinis, pluriguttatis, 35-58 \times 2,5-3.

Hab. ad ramulos siccos Oleæ europææ, Lisboa Lusitaniæ (BENFICA).

SCOLECOPELTIS Speg. — Syll. IX p. 1072, XIV p. 646.

1. **Scolecopeltis æruginea** A. Zimm. Centr. f. Bakter. 1902, II Abt. 3032
VIII, p. 183. — Peritheciis superficialibus, lenticularibus, glabris, nigris, sub microscopio ærugineis albo-marginatis, 0,4-0,5 mm. diam., margine ex hyphis mycelialibus laxis 2 μ . cr. formato, 0,2 mm. lato; ostiolo 20 μ . diam.; ascis e perithecii fundo orientibus, 4-sporis v. sæpius 2-3-sporis, clavatis, 80 \times 25; sporidiis cylindræis mox (etiam intra ascos) in articulos 15-20 \times 12 secedentibus.

Hab. in foliis Coffeæ libericæ hinc inde frequens, sed non noxia, Buitenzorg Javæ.

2. **Scolecopeltis Bauhinia** P. Henn. Fungi Amaz. III, 1904, p. 379. 3033
cum icon. — Peritheciis epiphyllis sparsis, rotundato-scutellatis, atris, 180-200 μ . diam., celluloso-radiatis, margine fimbriato-membranaceis subpallidis; ascis clavatis interdum subfusoides, apice rotundatis 8-sporis, 70-90 \times 20-30; sporidiis parallelis, cylindræis, obtusis, pluriseptatis, dein moniliformibus, cellulis globosis 6-8 μ . diam., hyalinis, in asco secedentibus.

Hab. in foliis Bauhinia spec., Iquitos, Rio Amazonas, Perù.

3. **Scolecopeltis Gadua** P. Henn. Fungi Amaz. III, 1904, p. 378. — 3034
Peritheciis sparsis epiphyllis, dimidiato-scutellatis, rotundatis, atris, opacis, centro subconico-papillatis subnitentibus, margine tenui subradiato, ca. 300 μ . diam.; ascis late clavatis vel subfusoides, apice rotundato-tunicatis, 8-sporis, sparse paraphysatis, 70-90 \times 20-40; sporidiis parallelis, subcylindræo-clavatis, 14-20-septatis, rectis vel curvatis, valde constrictis, cellula superiore subellipsoidea, cellulis mediis subglobosis 60-70 \times 5-7, hyalinis, deinde dilatantibus.

Hab. in foliis Gadua sp. Juruá-Miry Rio Juruá Amazoniæ.

4. **Scolecopeltis Guettardæ** P. Henn. Fungi Amaz. III, 1904, p. 380. 3035
cum icon. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, medio papillatis, atris, ca. 400-500 μ . diam., contextu radiato-celluloso, atro-cæruleo, margine fimbriato; ascis oblonge clavatis, apice rotundato-tunicatis, 8-sporis, paraphysatis, 110-140 \times 25-30; sporidiis parallelis, cylindræis, utrinque rotundatis pluri-ca. 20-26-septatis, ca. 90-112 \times 6-7, cellulis subgloboso-cuboideis, deinde secedentibus.

Hab. in foliis Guettardæ megalophyllæ, Juruá-Miry, Rio Juruá Amazoniæ.

5. **Scolecopeltis quindecimseptata** P. Henn. Fungi Amaz. III, 1904, 3036 p. 379, cum icon. — Peritheciis epiphyllis gregarie sparsis, rotundato-scutellatis, 500-800 μ . diam., membranaceis, radiato-cellulosis, atro-cæruleis, margine fimbriatis; ascis clavato-fusoideis, apice rotundato-tunicatis, basi attenuato-stipitatis, 8-sporis, 130-150 \times 30-40; sporidiis parallelis, cylindræis, utrinque obtuse rotundatis, rectis vel flexuosis, 15-septatis, ca. 100-120 \times 6-7; cellulis cuboideis, haud secedentibus?, hyalino-cyanescentibus.

Hab. in foliis Aracæe ejusdam, Juruá-Miry, Rio Juruá Amazoniæ.

Subfam. 2. Asterineæ Sacc. et Syd.

Sect. 1. Phæodidymæ.

ASTERINA Lév. — Syll. I p. 39, IX p. 379, XI p. 255, XIV p. 693, XVI p. 646 *).

1. **Asterina Belluciæ** P. Henn. Fungi. Amaz. III, 1904, p. 374, cum 3037 icon. — Maculis mycelii epiphyllis sparsis, rotundatis, atris, hyphis repentibus, torulosis, ramosis, atris, 4-7 μ . crassis, hyphopodiis alternis ovoideis, ca. 10 μ .; peritheciis gregariis, minutis, sublenticularibus, brunneo-fuscis, 70-100 μ . diam.; ascis paucis, ovoideis tunicatis, 8-sporis, 40-50 \times 35-40; sporidiis conglobatis, oblonge ellipsoideis, medio 1-septatis, constrictis, atris 20-23 \times 8-10.

Hab. in foliis Belluciæ sp. Juruá Miry, Rio Juruá Amazoniæ.

2. **Asterina byrsonimicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3038 p. 65. — Maculis mycelii hypophyllis vel epiphyllis effusis, atris; hyphis repentibus, radiatis ramosis, fusco-atris, usque ad 8-10 μ . crassis, pseudopodiis alternis ovoideis, 20 \times 10; peritheciis gregariis dimidiato-scutellatis, radiato-cellulosis, fusco-brunneis, medio perforatis, 250-300 μ . diam.; ascis ovoideis v. ellipsoideis, rotundatis,

*) Lapsu typographico in *Tab. comp. gen. fung.* (Syll. XIV, p. 24) locatur *Asterina* inter Hyalodidymas et *Asterella* inter Phæodidymas, sed, ut notum est, prorsus contrario res se habet.

3-sporis, $50-60 \times 30-40$; sporidiis conglobatis ellipsoideis, medio 1-septatis, valde constrictis, hyalinis dein atris, $20-30 \times 10-15$.

Hab. in foliis *Byrsonimæ* spec., Rio Negro, Manáos Amazoniæ.

3. **Asterina celtidicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3039 p. 64. — Maculis mycelii atris, effusis; hyphis repentibus, atris, septatis, ramosis, ca. $3-4 \mu$. cr., pseudopodiis alternis ovoideis, atro-fuscis, $8-10 \times 4-5$; peritheciis dimidiato-scutellatis, radiato-cellulosis, fuscis, medio perforatis, lobato-rimosis $90-120 \mu$. diam.; ascis ovoideis v. subglobosis, tunicatis, octosporis, $20-28 \times 18-25$; sporidiis conglobatis, ellipsoideis vel subovoideis, primo hyalinis, levibus, dein atris, granulato-verrucosis $15-20 \times 8-9$.

Hab. in foliis *Celtidis* spec., Bom Fim, Rio Juruá, Amazoniæ.

4. **Asterina opulenta** (P. Henn.) Sacc. *Asterella opulenta* P. Henn. 3040 in Hedw. 1904, p. 83. — Mycelio effuso crustaceo, aterrimo, maculiformi; hyphis ramosis, septatis, atris, $3-4 \mu$. crassis; conidiis subglobosis vel ovoideis, continuis, atro-fuscis $8-12 \mu$.; peritheciis discoideis rotundatis, atris, asteroideo-dehiscentibus, lobis subtriangularibus $120-150 \mu$. diam.; ascis paucis, ovoideis, tunicatis 4-sporis, $60-80 \times 40-60$; sporidiis conglobatis oblongis, utrinque rotundatis, medio 1-septatis, mucosis, haud constrictis, $32-40 \times 14-17$, primo hyalinis dein atro-castaneis.

Hab. in foliis *Ilicis* spec. Tijuca, Rio de Janeiro Brasilæ (E. ULE).

5. **Asterina Hyphaster** P. Henn. in Hedw. 1902, p. 299. — Maculis 3041 fuscidulis indeterminatis; hyphis repentibus atris, ramosis, anastomosantibus, septatis $3-4,5 \mu$. crassis; conidiis ovoideis v. ellipsoideis, atro-fuscis, medio 1-septatis; peritheciis lenticularibus v. discoideis, contextu radiato-fibroso, atro-fusco, centro pellucido, subtrilobato dehiscentibus, ad marginem radiato-stellatis, $150-180 \mu$. diam. primo conidia ovoidea, atrofusca 1-septata, constricta $10-15 \times 6-7$, conidiophoris brevibus hyalinis suffulta gerentibus; ascis ovoideis, tunicatis $20-25 \times 20-30$, octosporis conglobatis, ellipsoideis v. ovoideis, medio 1-septatis, constrictis, primo hyalinis dein atro-castaneis $12-16 \times 6-8$, cellulis subglobosis, deinde secedentibus.

Hab. in foliis *Malvastri* spec., in horto botanico S. Paulo Brasilæ. — *Hyphaster* P. Henn. est st. initialis conidicus.

6. **Asterina Viola** P. Henn. in Hedw. 1902, p. (63). — Mycelio atro, 3042 radiato-effuso hypophyllo, in maculis minutis gregariis; hyphis septatis, ramosis, fuscis $2,5-3,5$; peritheciis sparsis, lenticularibus,

radiato-cellulosis, poro pertusis, atris 40-50 μ . diam.; ascis ovoideis, utrinque rotundatis, 4-8-sporis, 12-15 \times 9-13; sporidiis conglobatis, ellipsoideis, fusco-brunneis, 1-septatis, paullo constrictis, 8-10 \times 4-4.5.

Hab. in foliis vivis *Violæ silvestris* var. *grypoceratis*, Mt. Yokogura Japoniæ (YOSHINAGA).

7. **Asterina Dictyolomatis** P. Henn. Fungi Amaz. III, 1904, p. 372. — 3043

— Maculis mycelii epiphyllis, gregariis, rotundato-angulatis, atris, ca. 1-2 mm. diam.; hyphis repentibus, ramosis, anastomosantibus, atrofusis, ca. 3-4 μ . crassis, hyphopodiis sparsis vel alternis, capitato-ovoides; peritheciis gregariis, lenticularibus, radiato-cellulosis, medio pertusis, ca. 100-150 μ . diam.; ascis ovoideis vel late ellipsoideis, ca. 30-40 \times 30, 8-sporis, apice crasse tunicatis; sporidiis conglobatis ellipsoideis vel subovoides, hyalinis dein atris, medio 1-septatis, constrictis, 15-20 \times 8-10.

Hab. in foliis *Dictyolomatis* spec., Jurimaguas, Huallaga Peruviae.

8. **Asterina anonicola** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, 3044

p. 107. — Mycelio crustaceo atro, maculas parvas, superficiales, ex hyphis septatis, atro fuscis 3-5 μ . cr. formante; conidiis ovoideis atro-fuscis 1-septatis, 20-24 \times 10-15; peritheciis sparsis, discoideis, poro pertusis, radiato-cellulosis, margine fimbriatis, 180-200 μ . d.; ascis ovoideis, octosporis 35-45 \times 30-35; sporidiis conglobatis ovoideis, medio septatis, vix constrictis, hyalino-fuscidulis 15-20 \times 10-13.

Hab. in foliis *Anonæ* spec., in horto botanico S. Paulo Brasiliæ.

9. **Asterina Passifloræ** (P. Henn.) Sacc. *Asterella Passifloræ* P. Henn. 3045

in Hedw. 1904, p. 84. — Mycelio atro, effuso, interdum obsolete, maculis minutis, rotundatis: hyphis castaneis, septatis, ramosis, ca. 3-4 μ . crassis; peritheciis lenticularibus, membranaceo-atris, aggregatis, radiato-cellulosis, poro pertusis 120-180 μ .; ascis ovoideis, vertice tunicatis, octosporis, 30-40 \times 20-25; sporidiis ovoideis vel ellipsoideis, medio 1-septatis haud constrictis, atris, 16-22 \times 8-12.

Hab. in foliis *Passifloræ* spec. Sao Francisco, pr. St. Catharina Brasiliæ (E. ULE).

10. **Asterina Negeriana** Syd. Ann. Mycol. 1904, p. 167. — *Amphigena*, 3046

maculas orbiculares sæpe confluyendo effusas efficiens; mycelio ex hyphis ramosis brunneis septatis ca. 3½ μ . crassis composito; peritheciis gregariis, minutis, punctiformibus, globulosis, radiatim contextis, atris, 100-175 μ . diam.; ascis ovato-globosis vel ovatis,

apice incrassatis, sessilibus, $25-35 \approx 18-23$, octosporis; sporidiis bistrichis vel conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, leniter constrictis, loculo superiore paullo latiore, ex hyalino brunneis, $14-18 \approx 7-8\frac{1}{2}$.

Hab. in foliis Escalloniæ pulverulentæ, Concepcion in Chile et Escalloniæ spec. eodem loco.

11. **Asterina paraphysata** Starb. in Arkiv. för Botan. 1904, Band. 2, 3047 p. 12. — Mycelio latiuscule repente, peripherice laxissimo, reticulato, centrum versus dense crustaceo, nigerrimo, maculas vage determinatas inæqualiter polygonas formante; hyphis 5-12 μ . crasso; hyphopodiis oppositis, versiformibus, cellula basilari plerumque breve tuberculato-ramulosa, superne obtusa, continua vel 2-septata; peritheciis subsparsis, plicato-rugosis vel setis brevibus obsessis, primo scutellatis, dein lenticularibus, pulveraceo-carbonaceis, 100-150 μ . diam.; ascis subpiriformibus, subsessilibus, $65-75 \approx 35-40$, octosporis; sporidiis conglobatis rhomboideis, 1-septatis, ex hyalino fuliginis, $29-32 \approx 14-16,5$, membrana minutissime granulosa; paraphysibus numerosis dense septatis, ramosis, olivascentibus, filiformibus, ramulis extremis varie curvatis.

Hab. in foliis Styracis, Piratiny, Rio Grande do Sul Brasilæ.

— Asci jodo cærulescentes. Paraphysium caractere species prædistincta.

12. **Asternia Turneræ** P. Henn. Fungi Amaz. III, 1904, p. 372, c. ic. — 3048 Maculis mycelii amphigenis, epiphyllis gregariis, rotundato-angulatis, atris, ca. 1-2 mm. diam.; hyphis repentibus, atro-fuscis, ramosis, anastomosantibus, 3-5 μ . crassis; pseudopodiis alternantibus, 2-4 lobatis, ca. $8 \approx 6$, lobis subovoideis, obtusis, atro-fuscis; peritheciis subgregariis, subhemisphæricis, pertusis, radiato-cellulosis, margine radiantibus, rufo-fuscis, 60-90 μ .; ascis ovoideis vel late ellipsoideis, 8-sporis, crasse tunicatis, $30-40 \approx 25-35$; sporidiis conglobatis, oblonge ellipsoideis, interdum subovoideis, utrinque rotundatis, medio 1-septatis valde constrictis, atro-fuscis, episporio minute granuloso, $14-20 \approx 7-10$.

Hab. in foliis Turneræ ulmifoliæ, Tarapoto, Perù.

13. **Asterina Aucubæ** P. Henn. F. japonici IV, in Bot. Jahrbücher 3049 vol. XXXI, 1902, p. 739. — Maculis rotundatis, atris, mycelio crustaceo; hyphis repentibus, atris 4-6 μ . crass., pseudopodiis ovoideis, 1-septatis, $6-8 \approx 5-6$; peritheciis gregariis subdiscoideis, pertusis 160-200 μ . diam., membranaceis, atris; ascis ellipsoideis, utrinque obtusis, $40-50 \approx 30-40$ octosporis, paraphysatis; sporidiis ob-

longe ellipsoideis, utrinque obtusis, medio 1-septatis, 25-35 × 10-12, constrictis.

Hab. in foliis *Aucubæ japonicæ*, Tosa Japoniæ.

14. *Asterina huallagensis* P. Henn. Fungi Amaz. III, 1904, p. 372, 3050 cum icon. — Maculis mycelii epiphyllis, gregariis rotundato-confluentibus, atris; hyphis repentibus, ramosis, atris; peritheciis sparsis raro subgregariis, hemisphærico-lenticularibus, atris, radiato-cellulosis, medio pertusis, 90-120 μ . diam.; ascis subglobosis vel ovoideis, 8-sporis, tunicatis, 25-30 × 22-26; sporidiis oblonge ellipsoideis, medio 1-septatis, valde constrictis, hyalinis dein atris, minute verrucosis, 15-18 × 7-9.

Hab. in foliis *Crotonis*, Huallaga, Tarapoto Perù.

15. *Asterina dilabens* Syd. Ann. Mycol. 1904, p. 168. — Amphigena; 3051 peritheciis gregariis, punctiformibus, 90-200 μ . diam., globulosis, atris, radiatim contextis, e medio marginem versus radiatim dehiscens; hyphis mycelii ramulosis, brunneis, ca. 3 $\frac{1}{2}$ μ . crassis; ascis ovato-globosis, sessilibus, 22-26 × 18-24, octosporis; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis constrictisque, loculis æqualibus, facile dilabentibus, ex hyalino brunneis, 12-15 $\frac{1}{2}$ × 7 $\frac{1}{2}$ -9.

Hab. in foliis *Sarmientæ repentis*, Concepcion in Chile. — Affinis *A. Negerianæ*, a qua differt sporidiis profundius constrictis et in binos articulos æquales facile secedentibus.

16. *Asterina Memoræ* P. Henn. Fungi Amaz. III, 1904, p. 373, cum 3052 icon. — Maculis mycelii epiphyllis, rotundatis vel effusis, atro-subcrustaceis vel subobsoletis; hyphis repentibus, ramosis, rufo-brunneis, ca. 3-5 μ . crassis, anastomosantibus; conidiis fusoides, hyalino-stipitatis, fusciculis, 3-septatis apice subhyalinis, 15-20 × 4-5; peritheciis gregariis v. sparsis, lenticularibus, pertusis, atris, radiato-cellulosis, ca. 150 μ . diam.; ascis clavatis, tunicatis, breve curvato-stipitatis, 8-sporis, 30-35 × 13-17; sporidiis subdistichis v. conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, valde constrictis, atris, 10-13 × 4 $\frac{1}{2}$ -5 $\frac{1}{2}$.

Hab. in foliis *Memoræ* spec. Huallaga, Tarapoto Perù.

17. *Asterina solanicola* P. Henn. Fungi S. Paulenses I, in Hedw. 3053 1902, pag. 108. — Mycelio crustaceo, atro, maculas minutas formante; hyphis superficialibus epiphyllis, atro-fuscis plerumque obsoletis; peritheciis sparsis, subhemisphæricis, poro pertusis 100-140 μ . diam., contextu parenchymatico, atro; ascis clavatis apice obtuso-rotundatis, basi curvulis, attenuatis, 35-40 × 8-10, octosporis;

sporidiis subdistichis, ellipsoideis, medio septatis, haud constrictis, hyalinis dein brunneis, $5-7 \approx 3,5-4$.

Hab. in foliis Solani leucodendri prope S. Paulo Brasiliæ.

18. *Asterina systema-solare* Massee in Kew Bull. 1901, p. 160. — 3054

Peritheciis gregariis, mycelio maculiformi atro insidentibus, sphaeroideo-depressis, glabris, $90-100 \mu$. latis; ascis cylindraceo-clavatis, breviter pedicellatis, octosporis, $50-55 \approx 12$; sporidiis distichis, obovatis, 1-septatis, fuscidulis, loculo superiore majore, obtusatis $9-10 \approx 5$.

Hab. in pag. sup. fol. Banksiæ marginatæ in Tasmania (RODWAY).

19. *Asterina Yoshinagai* P. Henn. in Hedw. 1902, p. (63). — Mycelio 3055

atro, radioso, in maculis rotundatis; hyphis effusis, septatis, ramosis vel simplicibus $3,5-5 \mu$. crassis; conidiis fusoideis, brunneis, apice interdum papillatis, basi stipitatis, 2-3-septatis, haud constrictis $18-20 \approx 4-4,5$, stipite fuscidulo usque ad 10μ . longo; peritheciis sparsis, lenticularibus, radiato-cellulosis, atro-brunneis, poro pertusis $50-80 \mu$. diam.; ascis oblonge ovoideis, apice rotundatis, basi curvulis attenuatis, octosporis, $30-40 \approx 15-18$; sporidiis subdistichis v. conglobatis, oblonge ovoideis v. subclavatis, primo 4-guttulatis, dein medio 1-septatis, hyalino-fuscidulis, $13-20 \approx 4-5$.

Hab. in foliis Quercus acutæ in prov. Tosa Japoniæ (YOSHINAGA).

20. *Asterina circularis* Pat. Bull. Soc. Mycol. 1902, p. 301. — My. 3056

celio plagas atras, epiphyllas, 1-2 mm. latas, orbiculares, crustaceas, centro mox nudatas efficiente, ex hyphis brunneis, radiantibus, prostratis, $4-5 \mu$. cr., septatis, ramulosis, dense stipatis, hyphopodiis sessilibus, 1-cellularibus, brunneis, globoso-sinuatis, $6-7 \mu$. alt. ornatis, setulis destitutis, composito; peritheciis numerosis circulatim gregariis, dimidiatis $150-180 \mu$. diam., subastomis, opacis, contextu radiante; ascis ovoideis, subsessilibus $35 \approx 15$, octosporis; sporidiis hyalinis dein brunneis, ellipticis, medio 1-septatis vix constrictis $13 \approx 3$.

Hab. in foliis vivis arboris ignotæ, Java (CLAUTRIAU).

21. *Asterina Libertii* Syd. Ann. Mycol. 1904, p. 167. — Amphigena; 3057

peritheciis in greges rotundatos vel ellipticos subinde irregulares 1-5 mm. longos sæpius circulariter dispositis, plerumque etiam folia tota tegentibus, superficialibus, oculo nudo conspicuis, atris, contextu radiato, mycelio ex hyphis repentibus nodulosis anastomosantibus composito, stellatim dehiscentibus, $140-200 \mu$. diam.;

ascis globosis vel subglobosis, sessilibus, superne incrassatis, 30-42 \approx 28-38, octosporis; sporidiis di-tristichis, ellipsoideo-oblongis, utrinque rotundatis, medio 1-septatis leniter constrictis, primitus hyalinis, tandem fuscis, 18-25 \approx 9-11, loculo superiore interdum paullo majore, plerumque autem loculis duobus æqualibus.

Hab. in foliis vivis Libertiae spec., Concepcion in Chile, frequens.

22. **Asterina Pandani** Rostr. in Bot. Tidsskrift. Copenhagen 1902, 3058 vol. 24, p. 211. — Maculis epiphyllis, atris, rugosis, usque 1 cm. latis, margine fibrilloso; peritheciis membranaceis, lenticularibus; ascis ovatis 46 \approx 33; sporidiis ellipsoideis 15 \approx 13.

Hab. in foliis Pandani, Siam Asiae merid.

23. **Asterina Stuhlmanni** P. Henn. Notizbl. bot. Gart. Berl. 1903, 3059 pag. 239. — Maculis epiphyllis, rotundatis vel effusis, bullatis, flavo-brunneolis, dein centro fuscis; peritheciis sparsis epiphyllis, lenticularibus 120-140 μ . diam., atro-fuscis, pertusis, radiato-cellulosis, mycelio fusco circumdatis; hyphis ramosis, septatis, sæpe torulosis, 3-4 μ . crassis; conidiis ellipsoideis vel ovoideis, utrinque obtusis, fuscis, medio 1-septatis, sæpe constrictis, plerumque 8-14 \approx 4-5; ascis ovoideis, apice rotundatis, tunicatis, 8-sporis, 25-32 \approx 18-24; sporidiis conglobatis, ovoideis vel ellipsoideis, primo hyalinis, 2 grosse guttulatis, dein fuscis medio 1-septatis, constrictis, episporio granulato-verrucoso, 12-15 \approx 8-9.

Hab. in foliis Ananassæ cultæ Dar-es-Salam Africae orient. (STUHLMANN). — Sporidiis verruculosus ad *A. alpinam* et *mexicanam* accedit, ceterum omnino diversa.

24. **Asterina Cyathearum** Rac. — Syll. fung. XVI, p. 649. — Hue ducenda *Halbania Cyathearum* Rac. Cryptog. parasit exsicc. Java n. n. 89 (saltem in meo exempl.), nam diagnosim novi generis nullibi vidi. In auctoris indice inter Phacidieas locatur.

KUSANOBOTRYS P. Henn. in Hedw. 1904, p. 141 (Etym. a cl. botanico *Kusano* japonensi). — Perithecia in mycelio crustaceo atro, stromatico superficialia, botryosa, subovoidea, membranacea, atra, basi setulis superantibus circumdata. Asci ovoidei 4-8-spori paraphysati; sporidia ovoidea 1-septata, fusca. — An potius ad Perisporiaceas prope *Meliolam* referendum genus?

1. **Kusanobotrys Bambusæ** P. Henn. in Hedw. 1904, p. 141. — Ma- 3060 culis epiphyllis, gregariis, rotundatis, atris, sæpe confluentibus, 2-3 mm. diam., mycelio crustaceo substromatico; hyphis olivaceo-

fuscis, ramosis, ca. 3 μ . crassis; conidiis ovoideis, olivaceo-fuscis, medio 1-septatis 13-20 \times 6-10; peritheciis 5-12 vel plurimis, botryose congestis, basi setulis atris, erectis ca. 108 \times 5-15, circumdatis, piriformibus, apice rotundatis subostiolatis, atro-olivaceis, parenchymatico-cellulosis, 60-80 \times 50-60; ascis ovoideis, apice crasse tunicatis, rotundatis 4-8-sporis ca. 40 \times 30; sporidiis conglobatis, ovoideis, rotundatis, medio 1-septatis, vix constrictis, primo hyalinis dein fuscis vel subatris, 16-23 \times 8-10.

Hab. in foliis Bambusæ Veitchii, Nikko Japoniæ (KUSANO).

Sect. 2. Hyalodidymæ.

ASTERELLA Sacc. — Syll. I p. 42, IX p. 393, XI p. 256, XIV p. 698, XVI p. 649.

1. **Asterella manaosensis** P. Henn. Fungi Amaz. III, 1904, p. 370, 3061 cum icon. — Maculis mycelii epiphyllis, rotundatis, atro-suberustaceis, ca. 5-8 mm. diam.; hyphis repentibus ramosis, torulosis, fuso-atris, 4-5 μ . crassis; peritheciis dense gregariis confluentibusque, lenticularibus, atro-brunneis, radiato-cellulosis, pertusis, ca. 180-250 μ .; ascis clavatis, apice rotundato-tunicatis, basi attenuatis, curvulis, 8-sporis, 50-80 \times 12-18; sporidiis subdistichis vel subconglobatis, oblonge ovoideis, clavatis v. ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictiusculis, hyalinis, 12-15 \times 4 $\frac{1}{2}$ -5 $\frac{1}{2}$.

Hab. in foliis Anonaceæ cujusdam Manáos, Rio Negro, Amazoniæ.

2. **Asterella Eupomatiæ** P. Henn. in Hedw. 1903, p. (78). — Maculis 3032 rotundatis v. indeterminatis, fuscis, hypophyllis; peritheciis minutis, lenticularibus, radiato-cellulosis, atris ca. 60 μ . diam.; hyphis repentibus, ramosis, atro-fuscis, septatis, ca. 3-3,5 crassis; conidiis subellipsoideis v. ovoideis, atris, 2-septatis, 10-12 \times 5-6; ascis subglobosis v. ovoideis, octosporis 25-30 \times 22-28; sporidiis conglobatis, ellipsoideis v. ovoideis, hyalinis, 1-septatis, valde constrictis, 12-18 \times 5-6.

Hab. in foliis Eupomatiæ lauriniæ, Eumundi, South Queensland Australia.

3. **Asterella rufo-violascens** (P. Henn.) Sacc. *Asterina rufo-viola-* 3063 *scens* P. Henn. in Hedw. 1904, pag. 83. — Mycelio crustaceo, fragili, atro maculiformi rotundato, 2-3 mm. diam.; peritheciis

lenticulari-rotundatis, sicco subcupulatis, membranaceis, atris, radiato-cellulosis, rufo-violascentibus, poro pertusis; hyphis mycelii ramosis, septulatis, radiatis, varie crassis; conidiis fusoides, 1-septulatis, rufis, 20-25 \times 4; ascis clavatis vertice rotundatis, tunicatis, octosporis, 35-45 \times 13-15; sporidiis subdistichis, oblonge ovoideis, utrinque obtusis, ad basim 1-septatis, constrictis, hyalinis 12-15 \times 5-6.

Hab. in foliis Begoniæ, Serra das Orgaos, Rio de Janeiro Brasilæ (E. ULE).

4. *Asterella Parmularia* P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3064 p. 64. — Peritheciis hypophyllis in mycelio *Asterinæ* parasitantibus, scutellato-rotundatis, hyphis repentibus, septatis, vix ramosis, subhyalinis, 2-4 μ . cr. circumdatis, 80-100 μ ., radiato-cellulosis, brunneis, poro pertusis; ascis clavatis, apice incrassatis, rotundato-obtusiusculis, octosporis, 25-35 \times 8-10; sporidiis distichis, clavatis, obtusis, medio 1-septatis, haud constrictis, 8-10 \times 3-4, hyalinis.

Hab. in foliis Cassiæ spec., Tarapoto, Rio Amazonas.

5. *Asterella Gardoquiæ* Syd. Ann. Mycol. 1904, pag. 169. — Hypo. 3065 phylla; peritheciis sparsis v. hinc inde subgregariis, minutis, punctiformibus, 70-140 μ . diam., radiatim contextis, irregulariter vel subinde substellatim dehiscentibus, membranaceis, mycelio ex hyphis tenuibus ca. 2-2 $\frac{1}{2}$ μ . crassis anastomosantibus septatis ramosisque composito cinctis; ascis subglobosis, sessilibus, apice vix v. leniter incrassatis, 25-32 \times 14-22, octosporis; sporidiis di-tristichis, ovato-oblongis, 1-septatis, non constrictis, apice rotundatis, basim versus leniter tenuatis, hyalinis, 14-17 \times 5-6.

Hab. in foliis vivis Gardoquiæ multifloræ, Concepcion in Chile (F. W. NEGER).

6. *Asterella microtheca* (Pat) Sacc. *Asterina microtheca* Pat. Bull. Soc. Mycol. 1902, p. 301. — Maculis amphigenis, superficialibus, brunneis, sparsis aut confluentibus, orbicularibus, 2-4 mm. latis; peritheciis numerosis, atris, minutis 70-80 μ . diam., poro pertusis, globoso-depressis, contextu minute celluloso, brunneo; hyphis prostratis, radiantibus, rectis, subsimplicibus 80-130 μ . longis, 4 μ . cr., brunneis, hyphopodiis destitutis, e basi enatis, insidentibus; ascis ovoideis, subsessilibus, minutis 20-25 \times 13, octosporis; sporidiis hyalinis, ovoideis v. subcylindræis 6-8 \times 3, medio 1-septatis.

Hab. in foliis Leucopsidis Tweediei in Brasilia (GLAZIOU).

— *A. irradianti* Pat. affinis.

7. *Asterella macularis* Syd. Ann. Mycol. 1904, p. 168. — Epiphylla; 3067

maculas rotundatas 2-4 mm. diam. dein confluentes tandemque magnam folii partem occupantes atro-purpureas efficiens; peritheciis sparsis vel subgregariis, rotundatis vel rotundato-ovatis, radiatim contextis, irregulariter rimose dehiscentibus, atris, 150-500 μ . diam., basi hyphis radiantibus ramosis septatis brunneis ca. $3\frac{1}{2}$ μ . crassis cinctis; ascis oblongo-cylindraceis, apice crassius tunicatis, sessilibus, 50-70 \times 10-16, octosporis; sporidiis distichis, ovato-oblongis, 1-septatis, loculo superiore minore rotundato, inferiore longiore attenuato, non constrictis, hyalinis, $12\frac{1}{2}$ - $16\frac{1}{2}$ \times $4\frac{1}{2}$ - $5\frac{1}{2}$.

Hab. in foliis vivis *Myrceugeniæ* Pitræ, Concepcion in Chile (F. W. NEGER).

8. **Asterella verruculosa** Syd. Ann. Mycol. 1904, p. 168. — Mycelio 3068

maculas nigras amphigenas rotundatas v. confluentes ca. 3-8 mm. latos efformante; hyphis myceliis castaneo-brunneis, nodulosis, anastomosantibus, ramosis, septatis; peritheciis sessilibus, appianatis, ca. $\frac{1}{4}$ mm. diam., atris, membranaceis, centro perforatis; ascis saccatis, apice rotundatis, breviter stipitatis, 50-75 \times 22-31, octosporis; sporidiis distichis, clavatis, medio 1-septatis, constrictis, loculo supero rotundato latiore verruculoso, inferiore deorsum attenuato angustiore levi v. sublevi, totis 22-25 μ . longis, loculo supero 8-11 μ . lato, inferiore $4\frac{1}{2}$ -8 μ . lato.

Hab. in foliis *Myrrhinii* rubriflori, Rio Grande do Sul Brasilæ (REINECK et CZERMAK, comm. F. W. NEGER). — Sporidiis peculiaribus prædistincta species.

9. **Asterella Aspidii** P. Henn. in Hedw. 1904, pag. 141. — Maculis 3069

superficialibus, rotundatis, atris, crustaceis, ca. 5 mm. diam.; peritheciis gregariis, interdum confluentibus, lenticularibus, atris, radiato-cellulosis, poro pertusis, lobato-dehiscentibus, ca. 60-90 μ . diam., basi hyphis fuscis 3-3, 5 μ . circumdati; ascis ovoideis 20-30 \times 18-20; sporidiis conglobatis ovoideis v. ellipsoideis, utrinque obtusis, medio 1-septatis, 10-12 \times 6-8, hyalino-fusculis.

Hab. in foliis *Aspidii* falcati var., Fortuna Tosa, Nekodati Japoniæ (YOSHINAGA).

Sect. 3. Hyalophragmiæ.

ASTERIDIUM Sacc. — Syll. I p. 49, IX p. 435, XI p. 269, XIV p. 699, XVI p. 650.

1. **Asteridium ferrugineum** P. Henn. in Engl. Bot. Jahrb. 1903, 3070

p. 47. — Maculis hypophyllis, subrotundatis, explanatis, ferrugineis; hyphis repentibus, brevibus, confluentibus, septatis, subtorulosis, ramosis ca. 3-5 μ . cr., ochraceo-fusculis; peritheciis subglobose-lenticularibus, poro pertusis, membranaceo-cellulosis, fuscis, margine radiantibus, ochraceo-fusculis 140-160 μ . diam.; ascis clavatis, apice rotundatis, crasse tunicatis, octosporis, 25-40 \times 8-10; sporidiis conglobatis, oblonge cylindraceis vel clavatis, utrinque obtusis, 3-septatis, constrictis, hyalinis, 15-20 \times 3,5-4.

Hab. in foliis *Cocöes nuciferæ*, Das-es-Salam, Zanzibar Africa orient. (STUHLMANN).

2. *Asteridium Heteropteridis* P. Henn. Fungi S. Paulenses I, in Hedw. 3071 1902, p. 108. — Peritheciis sparsis hypophyllis, in villo nidulantibus; hyphis subhyalino-fusculis repentibus, septatis ca. 3 μ . cr., circumdatis, convexo-lenticularibus, 140-200 μ . diam., atro-brunneis, membranaceis, astomis; ascis clavatis, rectis vel curvulis, apice obtusis, 35-50 \times 7-10, octosporis; paraphysibus filiformibus, hyalinis, 2 μ . cr.; sporidiis oblongis vel clavatis, subdistichis, obtusis, 2-3-septatis, 12-14 \times 3-4 hyalinis.

Hab. in foliis *Heteropteridis*, in horto botanico S. Paulo Brasiliæ.

Sect. 4. Phæophragmiæ.

ASTERIDIELLA Mac. Alp. — Syll. XIV p. 701.

1. *Asteridiella radiata* P. Henn., Fungi S. Paulenses I, in Hedw. 3072 1902, p. 108. — Mycelio radiato-effuso, atro, amphigeno; hyphis repentibus fuscis, septatis 4-6 μ . cr.; conidiis clavatis, apice obtusis, 3-5-septatis, atro-fuscis, 20-30 \times 5-6; stipite elongato usque ad 40 μ . longo, hyalino; peritheciis gregariis subhemisphæricis, poro pertusis, contextu membranaceis, radiato-cellulosis, atro-brunneis 60-80 μ . diam.; ascis clavatis, apice obtusis, octosporis, 30-49 \times 10-13; sporidiis conglobatis, clavatis, apice obtusis, basi subacutis, 5-septatis, haud constrictis, hyalino-fusculis, 25-30 \times 3,5.

Hab. in foliis Lauracæ cujusdam prope S. Paulo Brasiliæ.

2. *Asteridiella Marcgravie* P. Henn. Fungi Amaz. III, 1904, p. 376. 3073 cum icon. — Peritheciis hypophyllis in maculis subrotundatis, atris, scutellato-dimidiatis vel lenticularibus, atris, radiato-cellulosis, astomis, pertusis, ca. 150-200 μ . diam.; hyphis radiantibus, atris ramosis, atro-fuscis; ascis oblonge clavatis, rotundatis, basi

substipitatis curvatis, paraphysatis, 8-sporis, ca. 45-55 \times 14-16; sporidiis subdistichis, oblonge cylindraceis, utrinque obtusis, 3-septatis, primo hyalinis, dein fuscis, 25-35 \times 3-4.

Hab. in foliis *Marcgraviæ flagellaris*, Juruá-Miry, Rio Juruá Amazoniæ.

3. *Asteridiella Citharexyl* P. Henn. Fungi S. Paulenses I, in Hedw. 3074 1902, pag. 108. — Mycelio obsoleto v. hyphis fuscidulis, sparsis, repentibus 3,5-4 μ .; peritheciis amphigenis gregarie sparsis, punctiformibus, sublenticularibus, atris, margine membranaceo-fimbriatis, pallidioribus 100-140 μ . diam., astomis; ascis oblonge ellipsoideis, v. ovoideis, utrinque obtusis, octosporis, 25-40 \times 14-18; sporidiis conglobatis, fusoides, utrinque acutis, 1-dein 4-septatis, hyalinis, dein fuscis 13-22 \times 3-4.

Hab. in foliis *Citharexyl* Pœppigii, prope S. Paulo Brasiliæ.

Fam. 7. Lophiostomaceæ Sacc.

Sect. 1. Phæosporæ.

LOPHIELLA Sacc. — Syll. II p. 673.

1. *Lophiella Bambusæ* P. Henn. F. javanici novi, in Hedw. 1902, 3075 p. 143. — Maculis oblongis interdum confluentibus, subochraceis; peritheciis epiphyllis sparse gregariis, innato-subsuperficialibus, atro-carbonaceis, rotundato-pulvinatis, vertice poroso-rimosis, late apertis, ca. 1 mm. diam.; ascis clavatis apice rotundatis, octosporis, 80-90 \times 15-16; paraphysibus filiformibus hyalinis; sporidiis distichis oblongis vel clavatis, obtusis, 20-30 \times 6-8, continuis, fusco-brunneis.

Hab. in foliis *Bambusæ* spec. in insula Java.

Sect. 2. Hyalodidymæ.

LOPHIOSPHÆRA Trev. — Syll. II p. 675, IX p. 1075, XI p. 383, XIV p. 702.

1. *Lophiosphæra Antillarum* Pat. in Duss. Enum. Champ. Guadel. 3076 1903, p. 83. — Peritheciis sparsis v. inordinate gregariis, cortice superficie atrato immersis, $\frac{1}{3}$ mm. diam., ostiolis exsertis, erectis, compressis, contextu coriaceo nigro, celluloso; nucleo albo; ascis

cylindræis apice rotundatis, basi tenuatis, 160-200 \times 25, octosporis; paraphysibus copiosis, linearibus, ramosis et vulgo apice contortis; sporidiis biseriatis, elongato-fusoideis rectis, curvulisve, muticis, 1-septatis, constrictis, grosse 2-4-guttulatis, 53-63 \times 12-14, hyalinis dein pallidissime fuligineis.

Hab. in ramis emortuis *Ingæ laurifoliæ*, Camp-Jacob Guadalupe.

Sect. 3. Phæodidymæ.

SCHIZOSTOMA Ces. et De Not. — Syll. II p. 673, IX p. 1074, XI p. 382, XIV p. 702, XVI p. 650.

1. **Schizostoma Cercocarpi** Earle, *Plantæ Bakerianæ*, fasc. II, Fungi, 3077 p. 18. — Peritheciis ovoideis 300 \times 250 μ ., nigris vix lucentibus, dense congestis v. confluentibus in crusta stromatica insidentibus, ostiolo minute et obsolete pliciformi donatis; ascis lineari-cylindræis 80 \times 6; paraphysibus numerosis; sporidiis monostichis, fusiformibus, 1-septatis, constrictis, pallide olivaceo-brunneis, 16-18 \times 4.

Hab. in ligno emortuo *Cercocarpi*, Hermosa, South Colorado, Amer. bor.

Sect. 4. Hyalophragmiæ.

LOPHIOTREMA Sacc. — Syll. II p. 678, IX p. 1076, XIV p. 703.

1. **Lophiotrema Cercocarpi** Earle, *Plantæ Bakerianæ* fasc. II, Fungi, 3078 p. 17. — Peritheciis dense gregariis, in areis nigrescentibus insidentibus, nigris, conicis, basi immersis, ostiolo conico-papillato donatis, compressis; ascis clavatis 80-100 \times 12-15; paraphysibus filiformibus,asco longioribus; sporidiis distichis, fusoideo-falcatis, utrinque acutis, non appendiculatis, 3-5-septatis, parce constrictis, guttula magna utroque polo donatis, hyalinis v. pallide olivaceis, 35 \times 8.

Hab. in ligno emortuo *Cercocarpi*, Hermosa, Colorado Amer. borealis.

Sect. 5. Phæophragmiæ.

LOPHIOSTOMA (Fr.) Ces. et De Not. — Syll. II p. 689, IX p. 1083, XI p. 383, XIV p. 704, XVI p. 651.

1. **Lophiostoma quadrinucleatum** Karst. — Syll. II, p. 689. — var. 3079
Sarothamni Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 265.
 — A typo differt peritheciis densius confertis, 300-500 μ . diam. ascis longioribus et angustioribus 90-130 \times 10; sporidiis submonostichis, subfusoides, brevioribus 15-17 \times 8-10, triseptatis, brunneis.
Hab. in ramis decorticatis *Sarothamni scoparii*, Luxemburg.
2. **Lophiostoma Cephalanthi** Fairm. Journ. of Mycol. 1904, p. 230. — 3080
 Peritheciis ligno immersis, superne hemisphærico-prominentibus, centro ostiolo compresso emergente præditis; ascis tereti-clavatis longe sensim stipitatis 100-130 \times 10; sporidiis oblongo-fusoides, rectis curvulisve, 5-7-septatis, initio 6-8-guttulatis, utrinque tenuatis, ad septa leniter constrictis, brunneis, 27-30 \times 6-7; paraphysibus filiformibus nucleolatis.
Hab. in ramis decorticatis *Cephalanthi occidentalis*, Ridgeway, N. Y. Amer. bor. — Sporidia medio disticha, utrinque monosticha.
3. **Lophiostoma insidiosum** (Desm.) De Not. — Syll. II, p. 703. — 3081
 var. **sessile** Rehm in Hedw. 1901, p. (104). — Peritheciis sparsis, emergentibus, dein plane sessilibus, 0,5 mm. diam.
Hab. in ramulis *Ericæ carneæ*, in alp. Bavaricæ. — A proxime affini *L. caulium* sporidiis plerumque appendiculatis differt.
4. **Lophiostoma roseo-tinctum** Ell. et. Ev. — Syll. IX, p. 1085. — 3082
 var. **ebulicola** Feltg. Vorstud. Luxemb. Nachtr. III, 1903, p. 263.
 — A typo præcipue distinguitur peritheciis confertioribus; ascis longioribus et angustioribus 120-140 \times 8-10; sporidiis plerumque 3-5-septatis, fusoides, non appendiculatis.
Hab. in caulibus emortuis *Sambuci Ebuli*, Luxemburg.
5. **Lophiostoma quercinum** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 3083
 1903, p. 265, *Lophiotrema quercinum* Feltg. II, p. 186. — Peritheciis sparsis vel gregariis, ligno semiimmersis, globoso-conoideis, ostiolo vario, nunc subpapillato, nunc compresso, nunc subanguloso, demum deciduo, nigris, carbonaceo-fragilibus 300-600 μ . diam.; ascis tereti-clavatis, breve stipitatis, 85-110 \times 13-18, filiformi-paraphysatis suboctosporis; sporidiis mono-distichis, fusiformibus, plerumque acutis, rectis curvulisve, diu 1-septatis hyalinis, 4-8-guttulatis, demum brunneis, tenuiter 3-6-septatis, plerumque hinc vel utrinque appendiculatis et muco obductis, 33 \times 5-7.
Hab. in ramis emortuis et ligno *Quercus Roboris*, Luxemburg. — *Lophiost. perverso* et *Loph. vaganti* affine.

6. **Lophiostoma occidentale** Tracy et Earle, *Plantæ Bakerianæ fasc. I*, 3084 Fungi p. 31. — Peritheciis sparsis, prominentibus, nigris, inferne rugosis, superne levibus, ovalibus $1-1,5 \times 0,5-1$ mm., ostiolo compresso; ascis clavato-cylindraceis, longe stipitatis $150-160 \times 20$; paraphysibus longis, filiformibus; sporidiis ellipticis, superne rotundatis, inferne subacutis, fuscis, 5-septatis, $30-40 \times 10-15$.

Hab. in ramulis Juniperi monospermæ, Mancos, South Colorado, Amer. bor.

BRIGANTIELLA Sacc. — Syll. II p. 707 (ut subgenus).

1. **Brigantiella pallida** P. Henn. F. javanici novi, in Hedw. 1902, 3085 p. 143. — Peritheciis hypophyllis, sparsis v. subaggregatis, innato-superficialibus, membranaceo-subcarbonaceis, pulvinato-hemisphæricis, albido-villosis, clausis, obtusis, dein apice poroso-apertis, ca. 0,5 mm. diam.; ascis clavatis, vertice obtuso-rotundatis, basi attenuatis, curvatis, octosporis, $150-200 \times 20-25$, paraphysatis; sporidiis distichis oblonge clavatis, apice rotundatis, basi hyalino-rostratis, 5-septatis, haud constrictis, brunneis vel atro-fuscis, $28-40 \times 10-14$.

Hab. in foliis Hibisci spec., Buitenzorg Javæ.

Sect. 6. Phæodictyæ.

PLATYSTOMUM Trevisan in Bull. Soc. Bot. Belgique 1877, vol. XVI, pag. 16. — Syll. XIV p. 27. — *Lophidium* Sacc. Mich. I, p. 340 (1878) — Syll. II p. 710, IX p. 1091, XI p. 384, XIV p. 706, XVI p. 653. — Huc ducendæ sunt species sequentes: *Platystomum compressum* (Pers.) Trev., *Pl. fraudulentum* (Diet. M.) Trev., *Pl. gregarium* (Fuck.) Trev., *Pl. hygrophilum* (Sacc.) Trev., *Pl. ramorum* (Nke) Trev., *Pl. nuculoides* (Sacc.) Lind., *Pl. Spartii* (Fabr.) Lind., *Pl. Cotini* (Fabr.) Lind., *Pl. thyridioides* (Sacc. et Speg.) Lind., *Pl. fenestrale* (Cooke et Ell.) Lind., *Pl. obiectum* (Peck) Lind., *Pl. ambiguum* (Fabr.) Sacc. et D. Sacc., *Pl. aromaticum* (Fabr.) Sacc. et D. Sacc., *Pl. confertum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. Cotini* (Fabr.) Sacc. et D. Sacc., *Pl. curtum* (Tr.) Sacc. et D. Sacc., *Pl. deflectens* (Karst.) Sacc. et D. Sacc., *Pl. diminuens* (Pers.) Sacc. et D. Sacc., *Pl. graphidosporum* (Anzi) Sacc. et D. Sacc., *Pl. inops* (Pass.) Sacc. et D. Sacc., *Pl. melanommoides* (Speg.) Sacc. et D. Sacc., *Pl. minus* (Ell.) Sacc. et D. Sacc., *Pl.*

nitidum (Ell. et Ev.) Sacc. et D. Sacc., *Pl. nobile* Sacc. et D. Sacc., *Pl. pachysporum* Sacc. et D. Sacc., *Pl. pachystomum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. Populi* (Fabr.) Sacc. et D. Sacc., *Pl. psilogrammum* (Dur. et Mont.) Sacc. et D. Sacc., *Pl. purpurascens* (Mont.) Sacc. et D. Sacc., *Pl. Ritro* (Pass.) Sacc. et D. Sacc., *Pl. ruborum* (Crouan) Sacc. et D. Sacc., *Pl. Santolinæ* (Fabr.) Sacc. et D. Sacc., *Pl. Scorpii* (Fabr.) Sacc. et D. Sacc., *Pl. subcompressum* (Karst.) Sacc. et D. Sacc., *Pl. subgregarium* (C. Mass.) Sacc. et D. Sacc., *Pl. tingens* (Ell.) Sacc. et D. Sacc., *Pl. incisum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. trifidum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. rude* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. anomalum* (Atkin.) Sacc. et D. Sacc., *Pl. chartarum* (Sacc. et Syd.) Sacc. et D. Sacc.

1. **Platystomum hysterioides** Earle, *Plantæ Bakerianæ* fasc. II, *Fungi* 3086 p. 18. — Peritheciis sparsis, elongatis $1 \approx 0,5$ mm. rugosis, nigris, basi fibrillis vestitis in rima longitudinali apertis; ostiolo inconspicuo; ascis cylindraceis breve stipitatis $100-140 \approx 12$; paraphysibus filiformibus, numerosis; sporidiis ovoideis 3-septatis, septo mediano constrictis, longitudinaliter divisis, initio brunneolis, dein intense brunneis, $20 \approx 10$.

Hab. in ramis decorticatis *Amelanchieris* et *Fendleræ* spec. *Hermosa* South Colorado, Amer. bor.

2. **Platystomum Amelanchieris** Tracy et Earle *Plantæ Bakerianæ*, 3087 fasc. I, pag. 32. — Peritheciis sparsis, immersis, nigris, inferne rugosis, superne lucentibus, fere hemisphæricis 0,5-1 mm. diam. sæpe irregulariter elongatis, ostiolo, inconspicuo donatis; ascis cylindraceis, stipitatis, $140-150 \approx 13-15$; sporidiis oblique monostichis, fuscis, dein opacis, ellipticis, utrinque acutis, 3-5-septatis, muriformibus, plus minusve constrictis, $22-24 \approx 7-8$.

Hab. in ramis decorticatis *Amelanchieris* spec., *Mancos*, South Colorado, Amer. bor.

3. **Platystomum Aceris** Tracy et Earle, *Plantæ Bakerianæ*, fasc. I, 3088 *Fungi* p. 32 (*Lophidium* Sacc.). — Peritheciis sparsis, nigris, rugosis, compressis $0,8-1 \approx 0,5-0,8$ mm. diam., ostiolo depresso, ellipticis; ascis oblongis, stipitatis $100-120 \approx 14-16$; paraphysibus numerosis filiformibus; sporidiis oblique monostichis, ovalibus, 3-septatis, ad septum medianum profunde constrictis, muriformibus, intense brunneis $17-18 \approx 9-10$.

Hab. in ramis decorticatis *Aceris glabri*, *La Plata River*, South Colorado, Amer. bor.

4. **Platystomum desertorum** Tracy et Earle Plantæ Bakerianæ fasc. I, 3089 Fungi pag. 32. — Peritheciis sparsis, subsuperficialibus, nigris, rugosis, hemisphæricis vel ovatis, 0,5 mm. diam., ostiolo elliptico vel fere circulari donatis; ascis cylindræis, longe stipitatis 135-150 \times 11-13; paraphysibus numerosissimis, filiformibus asco longioribus; sporidiis oblique monostichis, ovalibus, intense brunneis, 5-7-septatis, ad septum medium valde constrictis, muriformibus, 22-24 \times 8-9.

Hab. in caulibus emortuis « Sage Brush » dictis (Artemisiæ?) Mancos, South Colorado, Amer. bor.

5. **Platystomum Salicum** Earle, Plantæ Bakerianæ, II, fasc. I, Fungi 3090 p. 18. — Peritheciis sparsis initio velatis, dein erumpentibus, nigris, lucentibus, oblongis 0,7-1 mm. longis, 0,5 mm. latis, ostioliis pertusis, generaliter immersis, longis quantum latis; ascis clavatis 80-100 \times 16; paraphysibus numerosis, filiformibus; sporidiis subdistichis 5-7-septatis, ad septum medianum leviter constrictis, utrinque subacutis, curvulis, cellulis medianis longitudinaliter septatis initio pallide brunneolis dein fuligineis opacisque, 30-35 \times 7-8.

Hab. in ramulis emortuis Salicis spec., Hermosa, South Colorado, Amer. bor.

6. **Platystomum alpinum** Tracy et Earle, Plantæ Bakerianæ fasc. I, 3091 Fungi p. 32. — Peritheciis, in areis magnis, sparsis, subsuperficialibus, nigris, rugosis, hemisphæricis vel subovatis, 0,8-1 mm., ostiolo obsolete papillato, longiusculo, donatis; ascis cylindræis, breve-stipitatis 140-160 \times 12-14; paraphysibus numerosis, filiformibus; sporidiis oblique monostichis late ellipticis vel ovatis, brunneis dein opacis, 5-septatis, ad septum medium valde constrictis, loculo centrali longitudinaliter septato, 20-22 \times 8-10.

Hab. in ligno emortuo Pöpuli tremuloidis, Bob Creek, South Colorado, Amer. bor. — *Loph. trifido* E. et E. peraffine.

7. **Platystomum Aspidii** (E. Rostr.) Sacc. et D. Sacc. *Lophidium* 3092 *Aspidii* Rostr. Norske Ascom. 1904, p. 12 (Vidensk. Skrift.). — Peritheciis sparsis, tectis demum subliberis, ostiolo valde compresso; ascis cylindræis 150-155 \times 15-20; sporidiis fusoideis, 9-septatis, 45-52 \times 6-8.

Hab. in stipitibus Aspidii spinulosi, Alstadhaug Norvegiæ.

Fam. 8. Hemihysteriaceæ SPERG.

HYSTEROSTOMELLA Sparg. — Syll. IX p. 1098, XI p. 385, XIV p. 708, XVI p. 655.

1. **Hysterostomella sabalicola** Tracy et Earle in Bull. of the Torr. 3093
bot. Club. 1901, p. 185. — Maculis parvis, irregularibus, luteis; stromatibus sparsis hypophyllis, nigris, scutellatis, parvulis, irregulariter ovatis 0,8-1 mm. diam., margine constrictis; peritheciis elevatis, rugosis, rima percursis, labiis irregulariter conniventibus; ascis ovalibus 40-50 \times 20, octosporis; sporidiis irregulariter inasco dispositis, 1-septatis, fere hyalinis (immaturis?), 20 \times 6.

Hab. in foliis Sabalis Palmetto, Longboat Key, Fla. Amer. borealis.

2. **Hysterostomella floridana** Tracy et Earle in Bull. of the Torr. 3094
bot. Club. 1901, p. 185. — Maculis nullis; stromatibus sparsis, epiphyllis, nigris, superficialibus crustiformibus, 1-4 mm. diam., centro rugosis, rima connivente percursis, margine levibus, subiculo ex hyphis anastomosantibus fuscis composito, ut in *Lembosia*; ascis late ovalibus, octosporis, aparaphysatis, 30-35 \times 20-25; sporidiis inordinatis, anguste ovatis, 1-septatis, constrictis, apice v. utrinque obtusis, hyalinis pallide olivaceis (probabiliter maturitate intense coloratis) 16-18 \times 6-7.

Hab. in foliis Ardisiæ Pickeringii, Manatee, Fla. Amer. borealis.

3. **Hysterostomella Uleana** Rehm — Syll. XVI, p. 655. — var. **Asclepiadeæ** P. Henn. Hedw. 1904, p. 90. — Peritheciis amphigenis vel cauliculis, rotundato-maculiformibus, atris 5-7 mm. diam., crustaceis, medio congestis, linearibus, curvatis, rima longitudinaliter angusta dehiscens, contextu parenchymatico atro; ascis oblonge ovoideis, vertice tunicatis, rotundatis, octosporis, 26-35 \times 14-20; paraphysibus filiformibus 1,5 μ . crassis, epithecio olivaceo conglutinat; hypothecio olivaceo; sporidiis subdistichis vel globatis ellipsoideis, utrinque obtusis, medio 1-septatis, valde constrictis, hyalino-fusculis.

Hab. in foliis caulibusque Asclepiadaceæ cujusdam, Tijuca, Rio de Janeiro Brasilæ (E. ULE).

PARMULARIELLA P. Henn. Fungi Amaz. II p. 266 (1904) (Etym. a

Parmularia, cui affinis). — Stromata superficialia dimidiato-scutellata; perithecia in stromate immersa, radiantia, rima longitudinaliter dehiscentia; asci ovoidei v. clavati, 8-spori; sporidia oblonge clavata 1-dein 3-septata, omnino hyalina. — *Parmularia* affinis et simillima, sed sporidiis hyalinis, deinde 3-septatis.

1. ***Parmulariella Vernoniæ*** P. Henn. l. c. cum icon. — Maculis fu- 3096
scidulis rotundatis; stromatibus plerumque hypophyllis, sparsis v. subgregariis superficialibus, rotundato-scutellatis, centro papillato-ruguloso, radiatim subplicatis, atro-cellulosis; hyphis radiantibus, castaneis, 3-4 μ . crassis circumdatis; peritheciis subimmersis radiatis, rectis vel flexuosis, rima longitudinaliter dehiscentibus; ascis subovoideis vel clavatis, 8-sporis, vertice rotundatis, tunicatis, basi substipitatis curvulis, 25-45 \times 12-20; sporidiis conglobatis clavatis, hyalino-tunicatis, medio 1-septatis, constrictis, deinde plus minus 3-septatis, omnino hyalinis.

Hab. in foliis *Vernoniæ* spec., Tarapoto Peruviae.

Fam. 9. Hysteriaceæ CORDA.

Sect. 1. Hyalosporæ.

SCHIZOTHYRIUM Desm. — Syll. II p. 723, IX p. 1100, XIV p. 710, XVI p. 657.

1. ***Schizothyrium Hyperici*** (Vesterg.) Sacc. et D. Sacc. *Aporia Hype-* 3097
rici Vesterg. Micr. rariores selecti in Bot. Not. 1902, p. 115. — Peritheciis minutissimis, innatis, longitudinaliter seriatis, ambitu ellipticis, utrinque acutatis, udis, per rimam latiusculam, longitudinalem, discum album, revelantem dehiscentibus, nigris 400-500 \times 150-200; ascis cylindraceo-clavatis, deorsum tenuatis, sed sessilibus, apice rotundatis, octosporis, 60-85 \times 12-15; sporidiis mono-distichis obovato-oblongis, plerumque inæquilateris, utrinque rotundatis, continuis, hyalinis, 1-guttatis 13-15 \times 5-6.

Hab. in caulibus siccis *Hyperici* quadranguli in insula Abro Rossiae balticæ.

2. ***Schizothyrium Pteridis*** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 3098
1903, pag. 103. — Peritheciis gregariis basi insculptis, oblongis, rectis vel curvis, acutiusculis, rima tenui dehiscentibus, nigris, 1000-1350 \times 50-100, disco vix manifesto; ascis oblongo-fusoideis v. clavulatis, breve stipitatis, 22-30 \times 5,5-6, filiformi-paraphysatis;

sporidiis oblongis, utrinque obtuse tenuatis, hyalinis eguttulatis, 1-cellularibus (semper?), $5,5-6 \times 1$.

Hab. in stipitibus *Pteridis aquilinæ*, Luxemburg. — An forte idem ac *Aulographum aquilinum*, adhuc immaturum?

HENRIQUESIA Päss. et Thüm. — Syll. II p. 726, XVI p. 658.

1. *Henriquesia italica* S et Cav. — Syll. XVI, p. 658 — Teste Doct. 3099

Paoli in App. N. G. B. I. 1905, p. 93, c. ic., diagnosis speciei, quoad perithecium, sic reformanda: — Peritheciis superficialibus, sparsis, coriaceo-carbonaceis, ovatis, profunde sulcatis, quatuor sulcis majoribus rhombice dispositis, opacis, atris, rima inæquali, mediana, plus minusve lata, $\frac{3}{4}$ –1 mm. longis, paulo minus latis; ascis clavatis, longiuscule tenuato-stipitatis $60-65 \times 7-8$ (p. spor.), 8-sporis; sporidiis oblique monostichis, ovato-oblongis, unicellularibus utrinque obtusulis, interdum inæquilateralibus $7-8 \times 2,5-3$; paraphysibus filiformibus copiosis, apice massa grumosa fusce olivacea conglomeratis.

Hab. ad ramos decorticatos *Abietis albæ*, Vallombrosa, Italia (CAVARA).

DICHÆNA Fr. — Syll. II p. 771, IX p. 1116. — Observante doct.

Paoli (vide infra), sporidia etiam perfecte matura sunt continua, ovoidea hyalina, nec demum septata.

1. *Dichæna quercina* (Pers.) Fr. Elench., II, 141. — Syll. II, p. 771, 3100

Paoli App. N. G. B. J. 1905, p. 96, c. icone, ubi diagnosis reformata sequens: — Peritheciis primum immersis, dein erumpentibus, in maculas rotundatas ellipticas vel irregulares 0,5–2 cm. latas aggregatis, ellipticis vel elongatis, convexis, opacis, atris, subcarbonaceis, asperis, rima longitudinali angusta, dein, labiis tumidis dimotis, dehiscentibus, circiter 1 mm. long. $\frac{2}{3}$ – $\frac{1}{2}$ mm. crassis; ascis clavatis vel lageniformibus, compressis, $80 \times 26 \times 15$ subsessilibus 8-sporis; sporidiis oviformibus unicellularibus, primum endoplasmate granuloso, 1-guttulatis, hyalinis, tandem fuliginæis $18-20 \times 13$; paraphysibus filiformibus simplicibus vel parce ramosis, septatis, articulis brevibus, epithecium distinctum non formantibus.

Hab. ad corticem vivum lucidum juvenum *Quercuum* in Gallia, Italia, Germania. — Verisimiliter status pycnidici sunt *Psilospora Quercus* et *Dichænopis Notarisii*, de quibus cfr. suo loc.

Sect. 2. Hyalodidymæ.

AULOGRAPHUM Lib. — Syll. II p. 727, IX p. 1101, XI p. 386, XIV p. 711, XVI p. 659.

1. *Aulographum juruanum* P. Henn. Fungi Amaz. III, p. 382 (1904) 3101 cum icone. — Peritheciis epiphyllis in maculis atris, rotundato-angulatis, gregariis, ellipsoideo-scutellatis, atris, rima longitudinaliter dehiscentibus, ca. $150-180 \times 100-140 \mu$, radiato-cellulosis, margine hyphis septatis, fusco-brunneis, 3-4 μ . crassis circumdatis; ascis ovoideis, rotundatis, tunicatis, 8-sporis, $50-60 \times 35-50$; sporidiis conglobatis, ovoideis, submedio 1-septatis, constrictis, hyalinis, $25-30 \times 10-14$.

Hab. in foliis Rolliniæ spec., Juruá Miry, Rio Juruá, Amer. merid.

2. *Aulographum anaxæum* Sacc. et D. Sacc. Myc. ital. n. 1314. — Peritheciis hinc inde laxè gregariis, nigris, exiguis, ovatis oblongisve, convexulis, rimula longitudinali exaratis, $250-300 \times 100$, superficialibus, contextu tenui; ascis clavatis, brevissime stipitatis, apice rotundatis, $30-40 \times 9-11$, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis v. distichis, tereti-clavatis, utrinque obtusis, 1-septatis, leviter constrictis, loculo infero angustiore, 2-guttatis, $9-10 \times 4-4.5$, hyalinis.

Hab. in foliis emortuis Caricis spec. ad flum. Piave (Anaxum), Narvesa (Treviso) Italiæ bor.

3. *Aulographum mugellianum* Paoli App. N. G. B. J. 1905, p. 100, 3103 c. icone. — Peritheciis punctiformibus, subiculo nullo, epi-et hypophyllis gregariis, parallelis, superficialibus, cuticula striata nigricata tectis, dimidiatis, ovatis, rectis, simplicibus, utrinque obtusis, nitidulis, atris, membranaceis, rima superficiali angusta pertusis $300-350 \times 120-140$; ascis ovatis fuscidulo-tunicatis, $36-40 \times 23-25$, 8-sporis; sporidiis confertis, ovatis, episporio crasso, uni-septatis, loculis subequalibus, endoplasmate chlorino non guttulado neque granuloso, $15-16 \times 6$; paraphysibus paucis, conglutinis.

Hab. ad folia sicca Pini (silvestris?) S. Piero a Sieve in Mugello Etruriæ, Sept. 1904. — Ab *Aulogr. Pinorum* peritheciis minoribus magis applanatis etc. distinguitur.

4. *Aulographum quercinum* Ell. et Mart. deest in Sylloge, teste Rehm, Ann. Mycol. 1904, p. 354, sed revera adest sub nomine *Lembosia quercinæ* Tracy et Earle. — Syll. XIV, p. 714.

GLONIUM Mühl. — Syll. II p. 731, IX p. 1102, XI p. 386, XIV p. 711, XVI p. 661, 1144.

1. **Glonium Calatheæ** Rehm, Hedw. XLIV (1905). — Peritheciis gregariis, epiphyllis, sessilibus, linearibus v. trigonis, utrinque obtusis, rectis, rima longitudinali apertis, labiis medio distantibus, discum hyalinum denudantibus, atris, glabris, membranaceis, 0,3-0,5 mm. long. 90 μ . lat.; ascis ovoides 35-40 \times 15, octosporis; sporidiis fusiformibus, utrinque obtusis, 7-septatis, hyalinis 25 \times 5-7; paraphysibus ramosis conglutinatis.

Hab. in foliis *Calatheæ*, Blumenau Brasilæ (E. ULE). — Affine *Gloniellæ scriptæ*, sed disco brunneo et sporidiis minoribus 6-cellularibus diversum.

2. **Glonium microsporum** Sacc. — Syll. II, p. 736. — var. *americanum* Starb. in Arkiv. för Botan. 1904, II, pag. 8. — Peritheciis rarissime elongatis, sæpissime ellipticis v. fere globosis; sporidiis minoribus 7,5-9 \times 3-4, plane interdum fere imbricatim monostichis a typo differt hæc varietas.

Hab. in truncis prope Zarate in delta fluminis Paraná Buenos Aires Argentinæ. — Huc ducendum *Glon. microsporum* Starb. in Ascomyceten der ersten Regnellschen Expedition I, in Bih. K. Sv. Vet.-Akad. Handl. Band 25 Afd. III p. 18.

3. **Glonium cypericola** P. Henn. in Hedw. 1903, p. (84). — Peritheciis sparsis oblongis, convexis, atris, ca. 0,5-0,7 mm. longis, rectis, anguste rimosis, labiis obtusis; ascis clavatis, apice obtusis, octosporis 25-35 \times 5,5-7,5, paraphysibus filiformibus, hyalinis, 0,5 μ . cr.; sporidiis distichis, clavatis v. oblongis, obtusis, primo pluriguttulatis, dein medio 1-septatis, 5-7 \times 2-2,5 hyalino-chlorinis.

Hab. in Cyperaceæ siccæ ejusdam sp., S. Queensland Australiæ (PRITZEL).

CYCLOSCHIZON P. Henn. Fungi Africæ orient. II, in Bot. Jahrb. XXVIII p. 39 (Etym. *cyclos* circulus et *schizo* findo). — Stromata membranacea, dimidiato-orbicularia, superficialia, atra, rima circulari tenuissima aperta. Asci ovoides, paraphysati, octospori; sporidia subclavata, 1-septata, hyalina vel subfuscidula. *Parmulariæ* affinis.

1. **Cycloschizon Brachylænæ** (Rehm) P. Henn. Hedw. 1901, p. 173, 3107 *Schneepia Brachylænæ* Rehm Hedw. 1901, p. 173. — Stromatibus epiphyllis, gregariis, sæpe confluentibus, atris, glabris, haud nitentibus, dimidiatis, membranaceis, fusco-contextis, orbicularibus,

centro elevato-papillatis, rima circulari tenuissima 15 μ . lata, sæpe tenuiter albido-marginata, in sicco vix perspicua, centrifuge denique dilatata apertis, 250-300 μ . diam.; ascis ovoideis, sessilibus, apice valde incrassatis, 35-45 \times 20, octosporis; sporidiis tristichis clavatis, 1-septatis, cellula sup. $\frac{2}{3}$ longiore, ad septum non constrictis, hyalinis, 12 \times 5; paraphysibus filiformibus, septatis, 2 μ ., apice 3 μ . cr. fuscidulis.

Hab. in foliis vivis *Brachylænæ neriifoliæ* ad Promont. Bonæ Spei Afric. austral. (MAC OWAN).

Sect. 3. Phæodidymæ.

LEMBOSIA Lév. — Syll. II p. 741, IX p. 1104, XI p. 387, XIV p. 712, XVI p. 663.

1. **Lembosia Cactorum** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 186. — Maculis indefinitis; peritheciis sparsis, nigris, lucentibus, crassiusculis, v. subelevatis hysteriiformibus 200-250 \times 100-150, apice obtusis, labiis conniventibus v. leviter apertis, subiculo ex hyphis confertis anastomosantibusque 2-4 μ . diam. composito; epithecio bene evoluto; ascis ovalibus 25-30 \times 16-20 octosporis; sporidiis anguste ovatis, irregulariter dispositis, inæqualiter septatis, apice utrinque obtusis, hyalinis?, 12 \times 4.

Hab. in *Opuntia vulgari*, Palma Sola, Fla., Amer. bor.

2. **Lembosia brevis** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 185. — Maculis irregularibus, brunneis 2-4 mm. diam.; peritheciis epiphyllis sparsis, nigris, crustiformibus, raro furcatis et subconfluentibus, brevissimis, apice obtusis 100-175 \times 70-80, subiculo ex hyphis fuscis, simplicibus 10-20 \times 2-3 composito; ascis ovalibus octosporis, circ. 20 \times 16; sporidiis inordinatis, oblongis apice utrinque obtusis, 1-septatis, subhyalinis (immaturis?) 8-10 \times 4.

Hab. in foliis vivis *Ilicis* spec., Longboat Key, Fla. Amer. borealis.

3. **Lembosia Albersii** P. Henn. Fungi Africae orient. II, in Bot. Jahrb. XXVIII, p. 39. — Epiphylla gregaria, raro hypophylla, sparsa; peritheciis innato-superficialibus, subcarbonaceis in maculas orbiculares atras, subiculo radiante fibrilloso vel crustaceo circumdatis, plerumque gregariis, confluentibus, elongatis, atris, rima longitudinali dehiscentibus; ascis late clavatis, apice rotundatis,

crasse tunicatis, 4-8-sporis, 45-90 \approx 20-30; paraphysibus filiformibus, obvallatis, apice incrassatis curvulis, fuscis 3,5-4; sporidiis subdistichis vel monostichis, ovoideis, medio 1-septatis, constrictis, fuscis dein atris, 20-30 \approx 10-12.

Hab. in foliis *Elæodendri* spec. Usambara (ALBERS).

4. *Lembosia huallagensis* P. Henn. Fungi Amaz. III, 1904, p. 382, 3111
cum icone. — Peritheciis epiphyllis sparsis in maculis effusis, fusciculis, oblonge v. ellipsoideo-scutellatis, utrinque obtusis, rectis vel curvulis, 200-300 \approx 150-200 diam.; contextu radioso-celluloso fusco-brunneo, margine hyphis septatis, ramosis, hyphopodiis alternis, ovoideis ca. 10 \approx 5; ascis ovoideis vel late clavatis, apice rotundatis, 4-8-sporis, oblonge ellipsoideis, medio 1-septatis, constrictis, atris, 25-28 \approx 10-12.

Hab. in foliis Sapindaceæ cujusdam, Huallaga, Perù.

5. *Lembosia Drymidis* Lév. — Syll. I, p. 743, Rehm Hedw. XLIV, (1904) p. 8. Forma typica dignoscitur. — Peritheciis semper trigonis in centro macularum orbicularium 5 mm. diam. arcte congregatis; ascis ovoideis, apice valde incrassatis, 40-45 \approx 25; sporidiis clavatis, 18-20 \approx 6-7, strato mucoso tenui obvolutis; paraphysibus ramosis, 2-3 μ . crassis.

Hab. quoque in foliis *Drymidis chilensis*, Concepcion, Chili (Doct. NEGER).

6. *Lembosia Byrsonimæ* P. Henn. Fungi Amaz. II, p. 265. — Ma- 3112
culis epiphyllis atris suberustaceis, rotundatis vel effusis; peritheciis sparsis vel subgregariis, dimidiato-oblongis, radiato-cellulosis atris, hyphis ramosis, rufo-fuscis, ca. 3 $\frac{1}{2}$ -4 μ . crassis, radiatim circumdatis, ca. 200-280 \approx 150, rima longitudinaliter exaratis; ascis subglobosis vel ovoideis 40-45 \approx 35, 4-sporis, paraphysatis; sporidiis conglobatis ovoideis vel ellipsoideis, utrinque obtusis, 1-septatis, constrictis, atro-brunneis, 22-30 \approx 13-14.

Hab. in foliis *Byrsonimæ* spec., Manaos, Rio Negro Amazoniæ. — Ascis tetrasporis imprimis dignoscenda species.

7. *Lembosia manaosensis* P. Henn. Fungi Amaz. II, pag. 265. — 3113
Peritheciis epiphyllis, sparsis v. gregariis, vix maculosis, oblonge dimidiatis, utrinque subobtusis, rectis, ca. 300-400 \approx 200-250, contextu radiato-cellulosis, atris, hyphis radiantibus, septatis, ramosis, 3-5 μ . crassis, castaneis circumdantibus, longitudinaliter rimosis; ascis ovoideis, apice crasse tunicatis, 8-sporis, 55-65 \approx 45-50, paraphysibus apice conglutinatibus; sporidiis allipsoideis, utrinque rotundatis, medio 1-septatis, valde constrictis, atris, 25-35 \approx 13-17.

Hab. in foliis Malpighiaceæ cujusdam Manaos, Rio Negro Amazoniæ. — A *L. Byrsonimæ* ascis 8-sporis, maculis subcrustaceis subnullis mox distinguenda.

8. **Lembosia Sclerolobii** P. Henn. Fungi Amaz. III, p. 265. — Ma- 3114
culis epiphyllis, rotundatis vel confluentibus, atris; peritheciis sparsis vel gregariis oblongis, subfusoides-dimidiatis, atris, utrinque subacutis rectis usque ad 1 mm. longis, ca. 140-180 μ . latis, rima longitudinaliter dehiscentibus, hyphis fuscis, 3-4 μ . crassis radiantibus; ascis ovoideis, apice crasse tunicatis, 35-50 \approx 30-40, 8-sporis; paraphysibus conglutinatis; sporidiis conglobatis oblongis, interdum clavatis, obtusis, medio 1-septatis, valde constrictis, atrobrunneis, 17-23 \approx 6-9.

Hab. in foliis coriaceis *Sclerolobii* bracteosi, Marmellos, Rio Madeira Amazoniæ.

9. **Lembosia Warscewiczæ** P. Henn. Fungi Amaz. II, pag. 264. — 3115
Maculis rotundatis, atris; peritheciis gregariis, plerumque circulariter dispositis, simplicibus vel substellato-ramosis, linearibus, rectis vel flexuosis, ca. 1-1½ mm. longis, 180-200 μ . latis, utrinque acutiusculis, hyphis fuscis radiantibus circumdatis, rima angusta longitudinaliter dehiscentibus; ascis ovoideis vel subclavatis, vertice rotundato-incrassatis, 8-sporis, 50-60 \approx 25-30, paraphysibus hyalinis, filiformibus, apice conglutinatis; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis constrictis, primo hyalinis, dein atris, 20-26 \approx 10-13.

Hab. in foliis *Warscewiczæ* coccineæ, Manaos, Rio Negro Amazoniæ.

10. **Lembosia diffusa** Wint. — Syll. IX, p. 1106. — var. *hypophylla* 3116
Syd. Ann. Mycol. 1904, p. 162. — A typo præcipue differt peritheciis hypophyllis, maculis purpureo-fuscis carentibus; ascis 42-55 \approx 30-35; sporidiis octonis, hyalinis, dein brunneis, medio valde constrictis, 22-27 \approx 9-11.

Hab. in foliis *Posoqueriæ latifoliæ* in Brasilia (SELLO). —
Lemb. diffusa Wint. var. *breviuscula* Penz. et Sacc., observante cl. Sydow l. c., specificè est distinguenda nomine *L. breviscula* (Penz. et Sacc.) Syd.

11. **Lembosia Cassupæ** P. Henn. Fungi Amaz. IV, Hedw. XLIV, 3117
1905, p. 67. — Maculis mycelii epiphyllis, angulato-rotundatis sparsis, atris vel subobsoletis; peritheciis gregariis, oblonge fusoides interdum substellatis, atris, longitudinaliter rima erumpentibus, 400-500 μ . longis, rectis, 200-250 μ . latis, contextu radiato-cellu-

loso, margine hyphis repentibus atro-fuscis circumdatis, hyphopodiis alternis, ovoideis vel corniformibus, atro-brunneis 8×5 vel $15 \times 5-6$; conidiis fusoideis vel subclavatis, 1-4-septatis, $15-20 \times 4$; ascis ovoideis, apice crasse tunicatis, 8-sporis, paraphysatis, $40-60 \times 30-40$; sporidiis conglobatis, ellipsoideis v. subovoideis, medio 1-septatis, valde constrictis, atris, intus granulatis, $20-28 \times 10-14$.

Hab. in foliis *Cassupæ juruanæ*, Rio Juruá Amazoniæ.

12. *Lembosia parmularioides* P. Henn. Fungi Amaz. II, p. 265, c. ic. — 3118

Maculis nullis; peritheciiis epiphyllis gregariis variiformibus, stellatim conexis, interdum parmularioides, 0,5-3 mm. diam., ramulis oblongis substriiformibus apice subobtusis, convexis, longitudinaliter rima dehiscētibz, hyphis fuscidulis circumdatis, contextu atro, submembranaceo, radiato; ascis ovoideis, apice crasse tunicatis, 8-sporis, $35-50 \times 20-26$; paraphysibus apice ramosis, fuscidulis, conglutinatiss; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictis, atro-fuscis, $14-21 \times 8-9$.

Hab. in foliis *Apocynaceæ* ejusdam Juruá Miry Amazoniæ. — Pulcherrima species peritheciiis stellatim connexis distincta et ad *Parmulariam* nutans, sed hypostroma nullum.

13. *Lembosia lophiostomacea* Starb. in Arkiv f. Botan. 1904, II, 3119

pag. 8, fig. 16-18. — Mycelio hyphis 3-6 μ . cr., valde flexuosis, hinc inde nodulosis vel rugosis, anastomosantibus, fuscis, composito, maculas nigricantes, orbiculares, interdum confluentes, pro ratione distincte determinatas formante, 2-6 mm. diam.; peritheciiis sine ordine aggregatis, solitariis vel nonnullis confluentibus, polymorphis, plerumque ambitu elliptico, sæpe rotundato vel fere anguloso, dimidiatis, margine fimbriato, fibrillis in mycelium repens transeuntibus, linea media, primo depressiuscule elata, demum rimosim, interdum laceratim dehiscētibz, textura membranacea, $200-300 \times 125-200$; ascis ovatis vel sphæroideis, sessilibus v. late et brevissime pedicellatis, $16-19 \times 20-32$; sporidiis octonis, 1-septatis superne rhomboideis, vel ellipsoideis, inferne cylindraceis, basi truncatis, apice rotundatis, $12-17 \times 5,5-6$; paraphysibus nullis; conidiis aterrimis ex hyphis marginalibus orientibus, septatis, loculis mediis fuscis, impellucidis, apicalibus, sursum uno, deorsum plerumque duobus pallidioribus $19-25 \times 10-25$.

Hab. ad folia in silvula riparia fluvii Riacho Mbope, Paraguay. — Peritheciorum forma, sporidiis et conidiis, ut videtur, prædistincta species.

14. *Lembosia Cocoës* Rehm, Hedw. XLIV (1905) p. 8, *Lembosia Dry-* 3120

midis Lév. et Auct. p. p. — Peritheciis in centro macularum fuscarum irregulariter suborbicularium vel oblongarum marginem versus dilutiorum, ex mycelio hypharum rectangulariter ramosarum septatarum fuscarum 3-4 μ . lat. compositarum 0,5-1 cm. diam. sessilibus, linearibus, rarius subcurvatis utrinque acutatis, dispersis, sæpe centrifuge e centro radiantibus, atris, 900-1000 \times 150; labiis arcute juxta positis; ascis ovoideis 50-55 \times 25-28, octosporis; sporidiis clavatis 20-25 \times 9-10, medio septatis; paraphysibus ramosis 2 μ . cr.

Hab. in foliis *Cocoës cryospathæ* Laguna, St. Catharina Brasilæ (E. ULE). — A *Lembosia Drymidis* peritheciolorum forma omnino diversa.

15. *Lembosia Diplothemii* P. Henn. Hedw. 1904, p. 89. — Mycelio 3121 maculiformi rufo-brunneolo effuso; peritheciis sparsis vel aggregatis, linearibus rectis vel curvulis, obtusis, interdum substellato-confluentibus, usque ad 1 mm. longis, atris, rima longitudinaliter vix conspicua dehiscentibus, basi hyphis radiantibus septatis, circumdatis; ascis oblonge ovoideis vel subclavatis, apice tunicato-incrassatis, rotundatis, octosporis, 30-42 \times 16-24; paraphysibus copiosis, in epithecium atro-fuscum confluentibus; sporidiis oblonge fusoides, subcurvulis, utrinque subacutiusculis, medio 1-septatis, constrictis, interdum dilabentibus, 15-20 \times 4-6, hyalino-subfusculis.

Hab. in petiolis foliorum *Diplothemii maritimi*, Mauá Rio de Janeiro Brasilæ (E. ULE).

16. *Lembosia Philodendri* P. Henn. in Hedw. 1904, p. 89. — Macu- 3122 lis obsoletis; peritheciis subcirculariter dispositis, linearibus, rectis vel subcurvulis, obtusis, usque ad 1 mm. longis, ca. 200-250 μ . latis, atris; hyphis radiantibus ramosis, ca. 3-4 μ . crassis, fuscis circumdatis, longitudinaliter rima ca. 30-40 μ . lata dehiscentibus; ascis oblonge ovoideis, apice crasse tunicatis, octosporis, ca. 25-40 \times 15-20; sporidiis conglobatis, oblonge fusoides vel subclavatis, obtusiusculis, hyalinis, submedio 1-septatis, constrictis, 14-20 \times 3, 5-4,5.

Hab. in foliis *Philodendri*, Tijuca, Rio de Janeiro Brasilæ (E. ULE).

17. *Lembosia Agaves* Earle in Muhlenbergia 1901, p. 15. — Macu- 3123 lis crebre sparsis, atratis, leviter elevatis, 1-3 mm. diam.; mycelii hyphis tenuibus, brunneis, anastomosantibus, diffusis; peritheciis sparsis v. confertis non confluentibus, irregulariter ovoideis utrin-

que obtusis, rectis, firmulis et carbonaceis 200-500 \times 80-100; labiis arcte adpressis; ascis late ovoideis, tenui-tunicatis, 30-40 \times 20-25; sporidiis inordinatis, ovoideis, 1-septatis, constrictis, cellula altera globosa, altera acutiuscula, demum late brunneis, 14-16 \times 6-7.

Hab. in foliis *Agaves*, prope Carboroio, Portorico. — Subiculum circa perithecia parcum, ex hyphis rigidulis, fuscis, anastomosantibus constans.

DIELSIELLA P. Henn. in Hedw. 1903, p. (84) (Etym. a cl. L. DIELS cui dicatum). — Perithecia erumpenti-superficialia carbonaceo-atra, convexo-pulvinata vel scutellata, medio depressa papillata, rima subcirculari dehiscentia. Asci ovoidei vel clavati, 4-8-spori, copiose paraphysati; sporidia ellipsoidea, 1-septata, atro-fusca. — *Tryblidio*, *Lembosia* et *Cycloschizo* affinis.

1. **Dielsiella Pritzelii** P. Henn. l. c. p. (84). — Peritheciis amphige- 3124
nis, erumpenti-superficialibus, plerumque caespitosis, convexo-depressis vel scutellatis, fragilibus, atro-carbonaceis, subiculo fibrilloso; hyphis atris septatis ca. 4,5 μ . crassis circumdatis, medio papillatis, rima subcirculari-dehiscentibus, 0,5-1 mm. diam.; ascis ovoideis v. clavatis, apice rotundatis, tunicatis, 4-8-sporis, 60-120 \times 25-50; paraphysibus copiosis filiformibus, septatis, guttulatis, hyalino-fusculis, apice clavatis 3-4 μ . cr.; sporidiis subdistichis vel subtristichis, oblonge ellipsoideis, subfusoides vel ovoideis, medio 1-septatis, constrictis, atro-fuscis, 36-46 \times 15-24.

Hab. in foliis *Agathidis Palmerstonii* pr. flum. Barron, N. Queensland Australiæ (L. DIELS et PRITZEL).

BULLIARDELLA Sacc — Syll. II p. 764 (ut subgen.) (Etym. a summo mycologiæ magistro BULLIARD). — A *Mytilidio* dignoscitur sporidiis didymis (pariter fusco-olivaceis) nec pluriseptatis.

1. **Bulliardella Baccarinii** Paoli App. N. G. B. J. 1905, p. 101, c. ic. 3125
— Peritheciis minutis, sparsis vel subgregariis, undique versis, mytiliformibus vel obverse cymbiformibus, utrinque acutis, carinatis, longitudinaliter tenuissime striatis, subnitentibus, atris, fragilibus, rima longitudinali angustissima, labiis acutis arcte conniventibus, circiter $\frac{3}{4}$ -1 mm. long., $\frac{1}{4}$ - $\frac{1}{3}$ mm. crassis; ascis cylindraceis, subsessilibus, tenuiter tunicatis 100 \times 7-8, 8-sporis; sporidiis recte vel oblique monostichis, fusoides, utrinque plus minusve acutatis, interdum etiam obtusis, pallide olivaceis, 1-septatis, ad

septum non constrictis, 17-19 \approx 4-4 $\frac{1}{2}$; paraphysibus paucis filiformibus, parce ramosis.

Hab. in cortice Thujæ, S. Marcello Etruriæ (O. BECCARI, 1862).

Sect. 4. Hyalophragmiæ.

GLONIELLA Sacc. — Syll. II p. 765, IX p. 1112, XI p. 388, XIV p. 717, XVI p. 666.

1. *Gloniella* Ingæ Rehm in Hedw. 1903, pag. (172). — Peritheciis 3126
gregariis, sessilibus, orbicularibus vel plerumque linearibus, rectis, obtusis, glabris, atris, rima longitudinali vix perspicua percursis, 0,2-0,8 \approx 0,2-0,3 mm. carbonaceis; ascis cylindraceo-clavatis, apice rotundatis 60-65 \approx 7-8 μ , octosporis; sporidiis subfusiformibus, rectis, 3-septatis, cellula secunda latiori, ad septa vix constrictis, hyalinis, 9 \approx 3, distichis; paraphysibus filiformibus, apice subcurvatis, hyalinis 2 μ . cr.

Hab. in leguminibus putridis Ingæ, Theresiopell Brasilie (v. HÖHNEL).

2. *Gloniella* comma (Ach.) Rehm, Hedwigia 1903, p. (172) *Opegrapha* 3127
comma Ach. Syn. meth. p. 73. — Peritheciis in maculis corticis niveis, longe extensis dispersis, sessilibus, lineariformibus, rectis v. subcurvatis interdum trigonis, obtusis, glabris, nigris, rarissime confluentibus, rima longitudinali tenuissima percursa, carbonaceis 0,5-1 mm. long., 0,1-0,15 mm. latis; ascis clavatis, apice rotundatis, in stipitem tenuem angustatis, 50-60 \approx 15, octosporis; sporidiis fusiformibus, rectis, utrinque acutatis, transverse 11-septatis, hyalinis, demum subfuscidulis, 30 \approx 6, parallele positis; paraphysibus ramosis, apice fuscescentibus, itaque epithecium formantibus; hymenio Jodii ope cerulee tincto.

Hab. in corticibus Crotonis Cascarillæ venalis (Dr. REHM).

3. *Gloniella* chinicola Rehm in Hedw. 1903, p. (172). — Peritheciis 3128
dispersis, sessilibus, lineariformibus, rectis vel subcurvatis, obtusis, glabris, atris, rima angustissima percursis, 0,2-1 mm. longis, 0,1-0,15 mm. latis, carbonaceis; ascis oblongis, apice rotundatis, 60-65 \approx 12, octosporis; sporidiis subclavatis, rectis, transverse 7-septatis, quaque cellula 1-2 guttas magnas oleosas includente, ad septa subconstrictis, dilute fuscidulis 24 μ . long., apice sup. 7 μ . latis, distichis; paraphysibus filiformibus apice rotundato-clavatis, 4 μ . latis et fuscidulis. epithecium fuscum formantibus.

Hab. ad corticem *Cinchonæ* vulgo dictæ *Chinæ regię* *venalis* (Dr. REHM).

4. *Gloniella Pentastemonis* Earle in New York Bot. Gard. 1902, 3129 p. 346. — Peritheciis ex matrice nigrificata erumpenti-superficialibus, in cortice basi immersis, sparsis vel gregariis, plus minusve curvatis, utrinque acutis, intense nigris, non striatis, $1,15 \times 0,5$ mm.; ascis clavatis $60-70 \times 8-10$; paraphysibus filiformibus, septatis, epithecium brunneolum efformantibus; sporidiis oblique monostichis, hyalinis, subovatis, maturitate 3-septatis, paullo constrictis $15-18 \times 6-7$.

Hab. in caulibus emortuis *Pentastemonis* speciei cultæ, Stanford University Californiæ (C. F. BAKER).

5. *Gloniella sardoa* Sacc. et Trav. in Annal. Mycol. 1903, pag. 435, 3130 fig. IV. — Peritheciis hinc inde gregariis, anguste ellipsoideis, $0,5-0,8$ mm. longis, $0,3-0,4$ mm. latis, basi ligno infossis, nigrescentibus; ascis octosporis, ovato-clavatis, superne attenuatis, $50-60 \times 13-15$; paraphysibus apice clavatis, in materiam brunneam concretis; sporidiis cylindraceo-curvulis, utrinque rotundato-obtusis, 6-7-septatis, hyalinis, $16-18 \times 6$.

Hab. in ligno denudato *Populi* albæ, prope Sassari Sardiniae (A. N. BERLESE).

6. *Gloniella pseudocomma* Rehm in Hedw. 1903, p. (172). — Ascomatibus in cortice longe dealbato gregarie sessilibus, lineariformibus, plerumque obtusis, interdum subacutatis, rectis v. subcurvatis, rarissime trigonis v. stelliformibus, glabris, atris, rima angusta, medio dehiscente percursis, $0,3-1,5$ mm. long., $0,15-0,2$ mm. latis, carbonaceis; ascis clavatis, crasse tunicatis, apice rotundatis, $65-70 \times 20$, octosporis; sporidiis fusoides, rectis, transverse 3-7-septatis, hyalinis, denique flavidulis, $25 \times 7-8$, distichis; paraphysibus apice ramosis, crassioribus atque fuscidulis.

Hab. ad cortices, in Nova Zelandia (Dr. SCHIMPER).

7. *Gloniella Xerotis* P. Henn. Fungi Austral. II, p. 187. — Peritheciis erumpenti-innatis, oblongis, substriiformibus, subcarbonaceis, rima longitudinaliter dehiscentibus, atris, $0,3-0,4$ mm. longis, ascis cylindraceis vix stipitatis, obtusis, 8-sporis, $100-120 \times 8-12$; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, fusoides, crasse tunicatis, 3-septatis, constrictis, hyalinis, $16-22 \times 6-7$.

Hab. in foliis dejectis *Xerotis Drummondii*, Swan-River, Australiæ orient. (L. DIELS).

8. *Gloniella scripta* P. Henn. Hedw. 1904, p. 90. — Maculis cinereo- 3133

fuscidulis effusis; peritheciis gregariis variiformibus, lineatis, rectis vel curvulis, stellulatis, usque ad $1\frac{1}{2}$ mm. longis, atris, rima tenuissima percursis; ascis ovoideis vel subclavatis apice rotundatis, octosporis $35-40 \approx 14-20$; paraphysibus in epithecium fuscum confluentibus; sporidiis oblongo-fusoideis, rectis v. curvatis, utrinque acutis, 5-septatis, paullo constrictis, hyalinis, $15-20 \approx 4-5$.

Hab. in foliis *Pothoes* spec., Gavea, Rio de Janeiro Brasiliæ (E. ULE).

9. *Gloniella graphidioidea* Rehm, Hedw. 1903, p. (290). — Peritheciis 3134 in cortice longe lateque dealbatis, sessilibus, lineariformibus, utrinque subobtusis, rectis, serius curvatulis, interdum trigonis, rima longitudinali percursis, labiis demum subdistantibus et discum nigrum 100 μ . lat. denudantibus, 0,5-2-3 mm. long., 0,15-0,2 mm. lat. nigris, glabris, carbonaceis; ascis elongato-ovoides, apice rotundatis, sessilibus, $50-60 \approx 15$ octosporis; paraphysibus subramosis 2 μ . cr., apice 4 μ . cr. et fuscis; sporidiis ellipsoideis, 5-septatis, strato mucoso tenui obductis, hyalinis $15-18 \approx 5-6$, 2-3-stichis.

Hab. in stipitibus siccis *Pteridis aquilinæ*, Côte de Normandie, Vendée Galliæ (Doct. VIAND MARAIS).

PSEUDOGRAPHIS Nyll. — Syll. II p. 769, IX p. 1116, XIV p. 717.

1. *Pseudographis Mahoniæ* Feltg. Vorst. Pilz. Luxemb. 1903, Nachtr. 3135 III, p. 99. — Peritheciis gregariis, innato-erumpentibus, demum subligeris, rotundis vel oblongis, 300-500 μ . lat., extus brunneis, siccis atro-brunneis, disco concaviusculo, udo subolivaceo-brunneo, margine tenuiter denticulato; ascis clavatis, longiuscule stipitatis, $70-100 \approx 11-16$, p. spor. 55-68 μ . long., octosporis; sporidiis inordinatis, 1-2-stichis, oblongo-fusoideis, utrinque obtusis, rectis curvulisve, 2-4-cellularibus, non constrictis, sæpe pluri-guttulatis, $21-27 \approx 5,5-6$; paraphysibus filiformibus, paullo superantibus, ramulosis, supra 3-4 μ . lat., flavo-brunneis.

Hab. in ramis decorticatis, putridis *Mahoniæ* spec. Luxemburg.

2. *Pseudographis hysterioides* Feltg. Vorstud. Pilz. Luxemb. 1903, 3136 Nachtr. III, p. 99. — Peritheciis gregariis sessilibus, basi interdum annulo tenui piloso cinctis, ellipticis, utrinque obtusis, raro subrotundis, rima recta v. curvula margine erosa dehiscentibus, 500-1000 \approx 500, extus brunneo-nigris, pruinoso-rugulosis, disco oblongo-elliptico plano convexulo, concolore; ascis clavatis, longiuscule stipitatis $70-80 \approx 10-11,5$, octosporis; paraphysibus septa-

tis, sursum ramosis et uncinatis, obtusulis, subinde conidia 3-5-septata, oblongo-elliptica gerentibus; sporidiis distichis, elliptico-fusoideis, obtusis; rectis vel curvulis, 3-septatis, non v. vix constrictis, rarius 1-2-cellularibus, hyalinis v. ex hyalino flavidis, 16-21 \times 5-6, interdum hinc vel utrinque breve appendiculatis.

Hab. in cortice et in ligno *Gleditschiæ Triacanthi*, Luxemburg. — *Ps. buxicolæ* affinis.

3. **Pseudographis? Icerbæ** P. Henn. in Hedw. 1903, pag. (85). — 3137

Peritheciis erumpenti-superficialibus, difformibus, subhemisphærico-depressis v. oblongo-curvatis, atro-carbonaceis, ca. 1-1,5 mm. longis, rima longitudinaliter exaratis; ascis cylindræo-clavatis, apice obtuse rotundatis, octosporis ca. 140 \times 6-8; paraphysibus filiformibus, hyalinis, ca. 2,5 μ . diam.; sporidiis oblique monostichis, fusoideis, utrinque subacutiusculis, pluriseptatis, 25 \times 5-6, hyalino-fusculis.

Hab. in caulibus *Icerbæ brexioidis*, Neu-Seeland Australiæ (L. DIELS).

4. **Pseudographis Cocoës** P. Henn. Fungi S. Paulenses I, in Hedw. 3138

1902, p. 111. — Maculis atro-rufis v. pallescentibus, exaridis, rotundatis; peritheciis epiphyllis sparsis v. gregariis, sæpe nervos sequentibus, innato-erumpentibus, oblonge rotundatis, fuscis, longitudinaliter rimosis, subcupulatis 150-200 μ . diam.; ascis oblonge ovoideis, apice obtusis, octosporis 20-30 \times 15-17; paraphysibus superne ramosis; sporidiis conglobatis, ellipsoideis v. oblonge ovoideis, 4-septatis, haud constrictis, hyalinis, 9-13 \times 3,5-4.

Hab. in foliis *Cocoës Romanzoffianæ*, in horto botanico S. Paulo Brasilæ.

PHRAGMOGRAPHUM P. Henn. Fungi Amaz IV in Hedw. 1905, p. 68, cum icone (Etym. *phragma* septum, quasi *Aulographum* hyalophragmium). — Perithecia superficialia, sublinearia, simplicia vel ramulosa, rima longitudinali dehiscentiâ, submembranacea, atra. Asci subovoidei, clavati, 8-spori, aparaphysati; sporidia longe fusoidea, pluriseptata, basi subrostrata, hyalina *Aulographo* affinis, sed sporidia pluriseptata.

1. **Phragmoglyphum Bactridis** P. Henn. l. c. cum icône. — Maculis 3139

epiphyllis, effusis, fusciculis vel obsolete; peritheciis gregariis superficialibus, linearibus, rectis vel curvulis, sæpe stellato-ramosis, ca. 1 mm. longis, ca. 150-200 μ : latis, rima longitudinaliter dehiscuntibus, atro-cellulosis; ascis subovoideis vel clavatis, apice

rotundato-tunicatis, 8-sporis, paraphysatis, $35-60 \approx 18-22 \mu$.; sporidiis subtristichis vel conglobatis, fusoides, flexuosis apice rotundatis vel acutiusculis, basi subcurvato-rostratis, 4-5-septatis, constrictis, hyalinis, $25-30 \approx 4$.

Hab. in foliis Bactridis sp. pr. Rio de Janeiro Brasilæ.

Sect. 5. Phaeophragmiæ.

HYSTERIUM Tode em. — Syll. II p. 743, IX p. 1108, XI p. 387, XIV p. 715, XVI p. 664.

1. **Hysterium compressum** Ell. et Ev. in Journ. of Mycol. 1902, 3140 p. 69. — Peritheciis sparsis, medio rima longitudinali percursis, 1-3 mm. long. 0,5 mm. lat., linearibus vel undulatis curvulisve, apice utrinque obtusis, labiis clausis v. leviter apertis; ascis oblongo-cylindræis, breve stipitatis $75-80 \approx 15-20$, sursum incrassatis; paraphysibus filiformibus, permultis; sporidiis di-tri-stichis, fusoides, 3-septatis, parce constrictis, hyalinis dein fuligineo-brunneis, subinæquilateralibus, curvulis, compressis, $25-30 \approx 7-10$.

Hab. in ligno emortuo Pini palustris, Alabama Americæ. — Ab *H. insidente* differt sporidiis semper 3-septatis et distincte compressis, e latere tantum 4-5 μ . cr.

2. **Hysterium vermiforme** Masee in Kew. Bull. 1901, pag. 166. — 3141 Peritheciis superficialibus, gregariis, atris, carbonaceis, lineari-elongatis seu vermiformibus, utrinque acutiusculis, medio rima longitudinali percursis, 2-4 mm. longis, 0,5 mm. latis, transverse striatulis; ascis cylindræis apice truncato-rotundatis, octosporis; paraphysibus filiformibus; sporidiis monostichis, cylindræo-ellipsoideis, utrinque obtusiusculis, triseptato-constrictis, brunneis, $35-40 \approx 12-14$.

Hab. in ramis corticatis in horto botanico, Aburi, Gold Coast Africae occident. — *Hyst. eumorpho* Sacc. affine.

3. **Hysterium angustatum** Alb. et Schw. — Syll. II, pag. 746. — 3142 var. **Ceratoniæ** Roll. Bull. Soc. Mycol. 1905, p. 29. — Peritheciis coriaceis, atro-nitidis, dense gregariis. usque ad $2,5 \approx 0,2-0,5$ mm.; asois spurie paraphysatis, $60-90 \approx 8-10$, clavato-oblongis; sporidiis elliptico-fusoides, utrinque rotundatis, 3-septatis, ad septa constrictis, $12-15 \approx 4-6$, rarius usque 18μ . long., æqualiter subluteo-fusculis, loculis æqualibus, 1-guttatis.

Hab. in ligno vetusto Ceratoniæ Siliquæ Sa Coma, Soller

ins. Balearium. — A typo ascis sporidiisque paullo minoribus, habitu et matrice dignoscitur.

TRYBLIDIELLA Sacc. — Syll. II p. 757, IX p. 1110, XI p. 388, XVI p. 665.

1. *Tryblidiella irregularis* Starb. in Arkiv. för Botan. 1904, Band 2, 3143 p. 5. — Peritheciis dense gregariis, interdum crustam fere formantibus, superficialibus, vix erumpentibus variiformibus v. elongatis, rectis vel flexuosis, rarius ellipsoideis, rarissime rotundatis, plerumque stellatim vel aliter partitis, interdum polygonis, apicibus acutiuscule rotundatis, glabris, non striatis, primo labiis arcte connexis clausis, deinde latiuscule apertis, aterrimis, textura mollior coriacea, 0,5-1 mm. longis, 100-150 μ . latis; ascis clavatis, deorsum breviter pedicellatis, sursum rotundatis incrassatulis, octosporis, 65-75 \times 12-15; sporidiis distichis, inferne monostichis, oblongo-ellipsoideis vel plerumque ovoideis, triseptatis, utrinque loculo guttula una majore præditis, vix ad septa constrictis, primo hyalinis, denique fuliginea 16,5-18 \times 6-7,5; paraphysibus filiformibus, hyalinis, partitis, continuis 1-2 μ . crassis; epithecio ex massa granulosa, atra formato.

Hab. in truncis in delta fluminis Paraná prope Zarate, Buenos Aires Argentinae. — *T. Steigeri* affinis, sed multo minor.

MYTILIDIUM Duby — Syll. II p. 760, IX p. 1111.

1. *Mytilidium Thujae* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 3144 1903, p. 112. — Peritheciis sparsis vel gregariis, basi angustata sessilibus, navicularibus, rectis vel curvulis, acutis vel obtusis, tota longitudine rima angusta dehiscentibus, extus glabris et nitidulis, nigris, 300-1200 \times 300-400; ascis cylindræis, longiuscule stipitatis, 90-105 \times 5,5-7, filiformi-paraphysatis, 6-8-sporis; sporidiis 1-2-stichis, longe demum 5-7-septatis, non v. vix constrictis, pallide flavo-brunneis, minute guttulatis, 22-30 \times 2,5-3.

Hab. in cortice vetusto Thujae orientalis, Luxemburg. — Ascis sporidiisque perangustis mox dignoscenda species.

HYPODERMOPSIS Earle in New York Bot. Gard. 1902, p. 345 (Etym. ab *Hypodermate*, cui affinis). — Perithecia elongata, nigra, minuta, epidermide velata, ut in *Hypodermate*; sporidia ellipsoidea-fusoida brunnea, bi- vel pluri-septata. — Gen. intermedium inter *Dermateaceas* et *Hysteriaceas*.

1. *Hypodermopsis Sequoiæ* Earle in New York Bot. Gard. 1902, 3145 p. 345. — Peritheciis sparsis, late ellipticis vel subangularibus, prominentibus, convexis, epidermide velatis, subellipticis vel undulatis, rima subprominula dehiscentibus vel anguste subclausis 750-1000 \times 500-750 μ .; ascis subcylindraceutis 70-75 \times 8-10; paraphysibus filiformibus epithecium vix distinctum formantibus; sporidiis distichis, fuscoideis, olivaceis 3-septatis, non constrictis, 18 \times 6.
- Hab.* in ramulis Sequoiæ sempervirentis, Coast Range, prope Stanford University Californiæ.

Sect. 6. Hyalodictyæ.

HYSTEROPSIS Rehm — Syll. IX p. 1118.

1. *Hysteropsis laricina* v. Höhnelt Fragm. zur Mykologie 1903, p. 11. 3146 — Peritheciis sparsis, sub epidermide matricis atroæruleo-æruginea innatis, rotundatis v. oblongis, 300-500 μ . longis 300-400 μ . latis, applanatis 120-130 μ . crassis, ostiolo rimoso, rima c. 100 μ . longa et ca. 50 μ . lata, marginibus acutis; tunica carnosa, tenui, supra crassiore, æruleo-æruginea; ascis clavatis, membrana subcrassa, 100-120 \times 14-16; sporidiis mono-vel subdistichis, ovalibus vel oblongis, hyalinis, transverse 3-7-septatis, longitudinaliter 1-4-septatis, mucos destitutis, 18-19 \times 10-12; paraphysibus numerosis, supra valde ramosis, filiformibus, 1-5 μ . crassis, ascos valde superantibus, apice in capitula elliptica, 2,5 μ . lata incrassatis.
- Hab.* in ramulis dejectis novellis, sed jam lignosis et epidermide adhuc tectis Laricis europææ, loco « Kaltenbachgraben » dicto prope Spital Styriæ superioris et prope Welsberg Tiroliae.
2. *Hysteropsis larigna* (Lamb. et Fautr.) v. Höhnelt, Fragm. zur Mykol. p. 12. Ita vocanda est *Gloniopsis larigna* Lamb. et Fautr. — Syll. XIV, p. 718. — Huic enim, teste v. Höhnelt. l. c., sunt perithecia 200-300 \times 200 applanata, epidermide velata; asci ovoidei-piriformes 32-52 \times 14-24, 8-spores, paraphysibus ramosis obvallati; sporidia oblongo-ellipsoidea, 3-4-septata septulisque 1-2 longitrorsum divisa, hyalina, 14-18 \times 5-6.

GLONIOPSIS De Not. — Syll. II p. 772, IX p. 1116, XIV p. 717.

I. *Eu-Gloniopsis* Paoli. Perithecia completa.

1. *Gloniopsis curvata* (Fr.) Sacc. — Syll. II, p. 775, Paoli in App.

N. G. B. I. 1905, p. 113, *Hysterium elongatum* ? *curcūm* Fries, Syst. Myc., II, p. 138; *Hysterium curvum* Fr. « in litt. »; *Hysterium curvatum* (Fr.) Duby. — Peritheciis subparallele aggregatis, elongato-linearibus, utrinque obtusiusculis, levibus, opacis vel nitidulis, atris, carbonaceis, rima longitudinali angusta, labiis vix inflexis, dein dimotis latiuscula, 2-2½ mm. lat., 0,5-0,7 mm. crassis; ascis cylindraceo-clavatis, sessilibus 75-80 × 14-15, 8-sporis; sporidiis distichis vel subdistichis, medio constrictis, utrinque obtusis 4-5-septatis; loculis nonnullis 1-2 septulis longitudinalibus divis, septis omnibus tenuibus, 14-15 × 6-7; paraphysibus ramosis epithecium luteolum formantibus (Paoli l. c.)

Hab. ad ramos Rosæ caninæ in Gallia (MOUGEOT ex herb. FRIES).

2. *Gloniopsis levantica* Rehm — Sacc. Syll. IX, p. 1118, D. Sacc. in Staz. Sperim. Agrar. ital. 1904, p. 63, *Hysterium curvatum* Plur. Auct. nec Fries (teste Paoli). — Peritheciis subsuperficialibus, congestis v. subsparsis, sessilibus, lineari-elongatis 600 × 200, atris, striatis, initio clausis dein in rimam angustam linearem hiantibus; ascis clavatis, crassis, 90-100 × 15-18, fere sessilibus, octosporis; sporidiis distichis vel subdistichis, interdum muco obvolutis, loculo superiore crassiore, ellipsoideis, pluriguttulatis dein maturitate 5-6-septatis, muriformibus, 18-25 × 7-9 hyalinis vel pallidissime luteolis; paraphysibus tenuibus granuloso-farctis, sursum interdum ramosis.

Hab. in sarmentis emortuis Rubi, Acque albule, Romæ et in Britannia.

3. *Gloniopsis illicicola* (Feltg.) Sacc. et D. Sacc. *Hysterographium illicicolum* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 110. — Peritheciis gregariis, ligno denigrato basi insculptis, oblongo-ellipticis, utrinque rotundatis, rectis curvulisve, subparallelis, rima latiuscula apertis et crassiuscule marginatis, opace nigris, non striatis, 500-1000 × 200-300; ascis crasse clavatis, breviuscule stipitatis 60-80 × 20-22, octosporis; sporidiis distichis, qbc to-ellipticis, rectis, 5-septatis, medio constrictis, cellulis mediis longitrorsum partitis, ex hyalino flavidulis minute guttulatis 16-19 × 9-10.

Hab. in ramis decorticatis Ilicis Aquifolii, Luxemburg.

— Affinis *Gloniopsi Lonicæræ*.

4. *Gloniopsis argentinensis* Speg. Myc. Argent. ser. II, 1902, p. 74. 3147
— Maculis candidis, ellipticis 15-60 mm. long. 5-20 mm. diam.;

peritheciis inter fibrillas ligni dealbati ex erumpenti-superficialibus, semifusoideis, subcarbonaceis, 1-2 mm. long. 0,4-0,6 mm. lat., glabris, contextu atro, opaco, indistincto; ascis cylindraceis, apice obtusissime rotundatis, basi brevissime cuneato-pedicellatis 150-200 μ . long. 18-20 μ . cr.; paraphysibus filiformibus parum numerosis, longioribus; sporidiis recte vel oblique monostichis utrinque obtusiusculis 30 \times 15, 7-septatis, ad septum medium validius ad cetera leniter constrictis, loculis sæpius 3-4-guttulatis, hyalinis. Membrana ascorum jodi ope tenuiter cærulescit.

Hab. ad palos decorticatos vetustos Eucalypti globuli, La Plata, in Argentina.

5. **Gloniopsis regia** Rehm in Hedw. 1903, p. (173). — Ascomatibus 3148 dispersis, sessilibus, lineariformibus, rectis, rarissime subcurvatis, utrinque obtusis, glabris, atris, rima angustissima, medio interdum subdehiscente percursa, 1-2 mm. longis, 0,2-0,3 mm. lat. carbonaceis; ascis ovalibus, sessilibus, 150 \times 45 octosporis; sporidiis oblongis, apice superiore latiore, rectis, transverse 15-, longitudinaliter 2-3-septatis, hyalinis, 120 \times 25, parallele positis; paraphysibus filiformibus, apice dilatatis et fuscidulis, epithecium formantibus.

Hab. ad corticem Cinchonæ vulgo *Chince regie* dictæ venalis (Dr. REHM).

6. **Gloniopsis multiformis** Starb. in Arkiv. för Botan. 1904, Band 2, 3149 pag. 8. — Peritheciis sparse gregariis vel aggregatis, non v. vix confluentibus, superficialibus, paullum basi innatis, plerumque ellipsoideis v. oblongatis, utrinque obtusiusculis, elongatis, flexuosis vel rectis et acutiusculis, usque 1 mm. longis, 200 μ . latis, sæpe fere sphaeroideis vel ovoideis, circ. 200 μ . diam., levibus v. rugosulis, atratis; ascis late cylindraceis vel clavatis, deorsum mox angustioribus, breviter pedicellatis, sursum rotundatis, paullo incrassatis, 60-80 \times 19-23; sporidiis octonis, conglobatis, transversim 5-7-septatis, loculis longitudinaliter 1-3-partitis, medio constrictis piriformibus vel ovoideis, hyalinis, 19-22 \times 7,5-10; paraphysibus filiformibus, ramulosis, hyalinis.

Hab. in petiolis foliorum Coperniciæ ceriferæ, Paraguay in Paraguay. — *G. decipienti* De Not. affinis.

II. *Pemigloniopsis* Paoli. Perithecia imperfecta h. e. dimidiata.

7. **Gloniopsis tecta** Paoli App. N. G. B. I. 1905, p. 111, cum icone. 3150

— Peritheciis parallele subgregariis, profunde immersis $1-2 \approx \frac{1}{2} - \frac{3}{4}$ mm. superne ligno nigrificato obtectis et fere formatis, inferne tenuibus, hyalinis, ellipticis, elongatis, utrinque acutissimis, opacis, rima longitudinali brevi exaratis, labiis inflexis; ascis cylindraceis vel vix clavatis, $110-130 \approx 16-18$, sessilibus, octosporis; sporidiis oblique monostichis v. subdistichis, oviformibus, septulis transversalibus 6-7, loculis longitrorsum 3-4 partitis, hyalinis, endoplasmate granuloso, episporio crassiusculo, $22-25 \approx 10-11$; paraphysibus rectis, haud ramosis, epithecium crassum hyalinum formantibus.

Hab. ad lignum (abietinum?) intemperiiis expositum juxta flumen Piave, Prov. di Treviso (herb. Sacc.).

8. **Gloniopsis Penzigi** Paoli App. N. G. B. I. 1905, p. 111. — Peritheciis punctiformibus, suborbicularibus, $0,5 \approx 0,4$ mm. convexiusculis, coriaceo-membranaceis, atris, utrinque obtusis, semiemergentibus, superne e contextu proprio nigro formatis, inferius tenuibus, hyalinis, rima brevi excavata pertusis; ascis cylindraceis vel vix clavatis, $100-120 \approx 16-18$, sessilibus, typice octosporis, rarius oligosporis; sporidiis oblique monostichis, oviformibus, septulis transversalibus 6-8, loculis longitrorsum 3-4 partitis, hyalinis, endoplasmate granuloso, episporio crassiusculo, $22-25 \approx 10-11$; paraphysibus rectis, haud ramosis, epithecium crassum hyalinum formantibus.

Hab. in ligno eroso Oleæ prope Mentone, Nizza (PENZIG in herb. Sacc.)

Sect. 7. Phæodictyæ.

HYSTEROGRAPHIUM Corda — Syll. II p. 776, IX p. 1119, XI p. 389, XIV p. 718, XVI p. 668.

1. **Hysterographium Rousselii** (De Not.) Sacc. — Syll. II, p. 779. — f. **Piri** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 111. — A typo differt peritheciis subcæspitosis, paullo minoribus, 1-2 mm. long., 0,5 mm. lat., semper levibus, opace nigris; ascis brevioribus et latioribus $82-108 \approx 13-18$; sporidiis flavis vel flavo-brunneolis.

Hab. in ligno nudo Piri communis, Luxemburg.

2. **Hysterographium Bakeri** Earle Plantæ Bakerianæ, fasc. II, Fungi p. 10. — Peritheciis gregariis, sæpe congestis, nigris, superficia-

libus, subcylindraceis, utrinque obtusis, rima longitudinali percursoris, sæpe e latere longitudinaliter striatis 0,5-1 mm. longis, 350 μ . crassis; ascis subcylindraceis $80 \approx 12$, paraphysibus brevioribus obvallatis; sporidiis distichis, ellipticis vel subcylindraceis, 5-7-septatis, leviter constrictis, muriformibus, utrinque subobtusis, brunneis $20-22 \approx 6$.

Hab. in ligno decorticato nigrificato Cercocarpi, Hermosa, Colorado, Amer. bor.

3. *Hysterographium nucicolum* (Schw.) Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 19, *Hysterium nucicolum* Schw. — Syll. II, p. 756. *Hyst. hians* Ell. et Ev. in herb. — Peritheciis elongatis 0,8-1 mm. long. 0,5 mm. latis, nigris, levibus, indistincte striatis, rectis v. curvatis, apice obtusis, rima distincte apertis; ascis oblongo-clavatis, paraphysatis $60-70 \approx 12-15$; sporidiis ovato-oblongis, biseriatis, initio hyalinis dein brunneo-nigris, 4-6-septatis, longitudinaliter septato-muriformibus, ad septum medium constrictis $15-22 \approx 6-9$.

Hab. in nucibus ad terram putrescentibus, Newfield, in Amer. boreali.

GRAPHYLLIUM Clements — Syll. XVI p. 1145.

1. *Graphyllum Chloës* Clements Bot. Surv. Nebraska 1901, p. 6. — Peritheciis minutis, sparsis vel gregariis, interdum linearibus, innatis, longitudinaliter erumpentibus, glabris, elongato-ellipticis v. linearibus, membranaceis; contextu parenchymatico e cellulis irregularibus, polygonalibus $5 \approx 6$ composito, nigris, rima exili percursoris, $100-300 \approx 30-50$; ascis octosporis ovoideo-clavatis $60 \approx 15$ vel cylindraceo-clavatis $90-110 \approx 12$; sporidiis distichis vel irregulariter monostichis, brunneis vel luteo-brunneis, oblongis v. ovato-oblongis, utrinque obtuse rotundatis, 3-raro 4-septatis, maturitate longitudinaliter divisus, 1 loculo compresso, altero subinflato, $20-22 \approx 8-10$.

Hab. in ramulis Aristidæ purpureæ et Boutelouæ oligostachyæ, in Nebraska, Amer. bor.

Sect. 8. Scolecosporæ.

LOPHODERMIIUM Chev. — Syll. II p. 791, IX p. 1124, XI p. 390, XIV p. 720, XVI p. 670.

1. *Lophodermium montanum* Ferraris in Malpighia 1902, p. 456, t. X,

f. IV. — Peritheciis sparsis, innato-depressis, atris, ellipsoideis 0,5–1 mm. long., rugulosis, rima longitudinali demum hiantibus; ascis clavatis, basi attenuatis, 70–80 \times 9–10, octosporis; sporidiis parallele stipatis, filiformibus, pluriguttulatis, 40–50 \times 1–1,5; paraphysibus filiformibus, flexuosis.

Hab. in foliis siccis Tofieldiæ calyculatæ, Courmayeur, Italiæ bor.

2. **Lophodermium Theobromæ** Pat. in Duss Enum. Champ. Guadel. 3157 1903, p. 84. — Maculis amphigenis, albidis, siccis, orbicularibus, 4–8 mm. diam., linea nigra nulla cinctis, sparsis confluentibusque; peritheciis epiphyllis, in medio maculæ paucis approximatis, superficialibus, nigris, angustis, utrinque attenuatis, vix 0,5 mm. long., 125 μ . lat. rectis, curvis v. trigonis, longitrorsum fissis, labiis conniventibus; contextu denso, brunneo-nigro, cellulis minutis angulosis formato; ascis cylindraceutis, utrinque attenuatis, 85–90 \times 5–7, octosporis; paraphysibus filiformibus sursum vix incrassatis; sporidiis filiformibus, 60–65 μ . long., parce guttulatis.

Hab. in foliis languidis Theobromæ Cacao, Basse-Terre Guadalupe (Duss). — Affine *L. hysterioidi*, a quo peritheciis angustissimis distinguitur.

3. **Lophodermium Spirææ** Hazsl. Zool. bot. Verh. 1887, p. 153. — 3158 Peritheciis ovalibus vel oblongis, obscure fuscis, rima angusta percursis, hymenio molli; ascis clavatis, inferne anguste pedicellatis; sporidiis filiformibus, utrinque acutatis, haud septatis.

Hab. ad caules Spirææ Arunci, Vallis Kohlbach, Tatra Hungariæ.

OPHIUM Fr. — Syll. II p. 799, IX p. 1126, XIV p. 723.

Lophium leptothecium Earle Plantæ Bakerianæ, fasc. II, Fungi, 3159 p. 11. — Peritheciis sparsis vel gregariis, erectis, oblongis, compressis, basi immersis, nigris, fragilibus, carbonaceis, transverse rugoso-striatis, rima exili, valde compressis 1–1,5 mm. longis, 0,5 mm. crassis; ascis 400–500 \times 6, paraphysibus filiformibus, 1 μ . cr. ramosulis suffultis; sporidiis asco æquilongis, 2 μ . crassis, intense brunneis, dense septatis.

Hab. in ramis emortuis Amelanchieris, Quercus, Rhois, Hermosa, Colorado, Amer. bor.

LABOULBENIOMYCETÆ Peyr. *)

(sub titulo *Laboulbeniaceæ* Peyr. 1875)

Syll. VIII p. 909, IX p. 1130, XI p. 446, XIV p. 725, XVI p. 674.

DIMEROMYCES Thaxter — Syll. XIV p. 275, XVI p. 674.

1. **Dimeromyces Forficulæ** Thaxter Proceed. of the Americ. Acad. 3160 of Arts and Sciences 1902, p. 9.

Hab. in corpore *Forficulæ tæniatæ* in Guatemala. —
Mas: long. tot. 60; antheridium cum stipite 28-30 \approx 7-8. Femina:
long. tot. 150-185 μ .; appendices 80 μ . longæ; perithecia cum
stipite 90-110 \approx 18-22; sporidia 35 \approx 3,5.

MONOICOMYCES Thaxter. — Syll. XVI p. 675.

1. **Monoicomyces Oxypodæ** Thaxter, Proceed. of the Americ. Acad. 3161 1902, p. 10.

Hab. in abdomine *Oxypodæ*, Intervale N. H. Amer. bor.
— Long. tot. 150-165 μ .; appendices 75 longæ; perithecia 75-
90 \approx 18-20; antheridia 107 \approx 25-35 μ . long.; sporidia 45 \approx 4,5.

2. **Monoicomyces nigrescens** Thaxter, Proceed. of the Americ. Acad. 3162 1902, p. 10.

Hab. in abdomine *Calloderæ* et *Tachyusæ* speciei, Intervale N. H. Amer. bor. — Long. Tot. 100-160 μ .; appendices 35-50 μ . longæ perithecia 60-65 \approx 22-25; antheridia 35 μ . long.

HERPOMYCES Thaxter, Proceed. of the Americ. Acad. of Arts and Sciences 1902, p. 11 (Etym. *herpo* serpo et *mycēs*).

1. **Herpomyces chætophilus** Thaxter l. c. p. 12.

3163

Hab. in spinis et antennis *Pèriplanetæ* sp. Zanzibar et ins. Mauritiæ Africæ merid. — Mas: long. tot. 50-55 μ . Femina: tot. long. individui primarii 35-40 μ .; receptaculum secundarium 35-75 \approx 22; perithecia 125-185 \approx 35-48; sporidia 30-35 \approx 3.

*) De speciebus *Laboulbeniacearum* Thaxterianis cfr. Syll. XIV, p. 725 nota.

2. *Herpomyces Periplanetæ* Thaxter l. c. p. 13.

3164

Hab. in corpore *Periplanetæ* et *Stylopygæ* sp. pl., Bermuda, Mexico, Panama, Brasilia, China et Amer. bor. — Mas: long. tot. 60-90 μ . Femina: tot. long. 125 \approx 75; perithecia 145-220 \approx 30-36; sporidia 16 \approx 1,5.

3. *Herpomyces arietinus* Thaxter l. c. p. 14.

Hab. in antenna insecti cujusdam Kentucky Amer. bor. — 3165
Mas: tot. long. 29 μ ., antheridia 20 μ . long. Femina: perithecia 100 \approx 22, cum processu terminali 18 μ . long.; receptaculum secundarium 55 \approx 18; sporidia 20 \approx 2.

4. *Herpomyces zanzibarinus* Thaxter l. c. p. 15.

3166

Hab. in antenna insecti cujusdam, Zanzibar Africae. — Mas: tot. long. 28 \approx 6,5; antheridia 25 μ . long. Femina: perithecia 125 \approx 28-32, cum processu terminali 10 μ . longo; paria receptaculi 45 \approx 30-35.

5. *Herpomyces forficularis* Thaxter l. c. p. 15.

3167

Hab. in antenna insecti cujusdam, ins. Mauritii? Africae merid. — Mas: tot. long. 18 \approx 5; antheridium 35 μ . long. Femina: long. tot. perithecii 220-250; receptacula secundaria 35 \approx 20-35; sporidia 18 \approx 2.

6. *Herpomyces Diplopteræ* Thaxter, l. c. p. 16.

3168

Hab. in corpore *Diplopteræ* dityscoidis, in insula Ascension Atlantici merid. — Mas: tot. long. 50 μ .. Femina: long. tot. 175-185; perithecia, pars ascigera, 70-75 \approx 28-30.

7. *Herpomyces tricuspидatus* Thaxter, l. c. p. 17.

3169

Hab. in antennis *Blaberæ* et *Epilampræ*? spp., Panama, St. Kitts, Haiti, China? — Mas: long. tot. 75 μ . Femina: long. tot. 175-200 μ . lat. maxima 220 μ .; pars ascigera perith. 45-50 \approx 15; sporidia 12 μ . long.

8. *Herpomyces paranensis* Thaxter, l. c. p. 19.

Hab. in antenna *Blaberæ*? sp. Para Brasiliæ. — Mas: long. tot. 250 μ .; antheridia 60-70 μ . long. Femina: long. tot. 123 μ ., pars ascig. perith. 58 \approx 30; sporidia 15 \approx 1,6.

9. *Herpomyces Ectobiæ* Thaxter, l. c. p. 20.

Hab. in corpore *Ectobiæ* germanicæ et sp., Cambridge, 3171 Zanzibar, St. Kitts. — Mas: long.? Femina: long. tot. receptaculi secund. 200-225 \approx 15; perithecia cum basi 80-90 \approx 20; sporidia 20 \approx 2,5.

CORETHROMYCES Thaxter — Syll. XI p. 449, XIV p. 729, XVI p. 681.

1. *Corethromyces longicaulis* Thaxter, Proceed. of the Americ. Acad. 3173
demy 1902, p. 20.

Hab. in corpore *Stilici angularis*, Arlington Mass. Amer. bor. — Longit. tot. 200 μ .; perithecia 65 \times 20; cellula basil. 90-110 \times 12; sporidia 30 \times 3.

ACOMPSOMYCES Thaxter — Syll. XVI p. 692.

1. *Acompsomyces Atomariæ* Thaxter, l. c. p. 22. 3173

Hab. in elytris *Atomariæ ephippiatæ*, Kittery, Point Maine et Intervale N. H. Amer. bor. — Long. tot. 125-150 μ .; perithecia 36-46 \times 25-30; cellula basil. 25-30 \times 10; sporidia 44 \times 3.

2. *Acompsomyces pauperculus* Thaxter, l. c. p. 23. 3174

Hab. in elytra, prothorace et artubus *Atomariæ* spec. Kittery Point, Maine Amer. bor. — Long. tot. 110; perithecia 70 \times 30-35; cellula basilaris 12-18 \times 9; sporidia 45 \times 4.

ACALLOMYCES Thaxter, Proceed. of the Americ. Acad. of Arts and Sciences 1902, pag. 23 (*Eym. a privat. callos pulchritudo et myces*).

1. *Acallomyces Homalotæ* Thaxter, l. c. p. 24. 3175

Hab. in parte superiore abdominis *Homalotæ*, Intervale N. H., Amer. bor. — Long. tot. 125-150; perithecia 75-95 \times 25-32; antheridia 21-25 μ . long.; sporidia 35 \times 3.5.

STICHOMYCES Thaxter. — Syll. XVI p. 692.

1. *Stichomyces stillicicola* Thaxter, Proceed. of the Amer. Acad. 1902, 3176
p. 24.

Hab. in thorace, prothorace et artubus *Stilici angularis* Arlington Mass. Amer. bor. — Appendices 150-200 μ . long.; perithecia 60-90 \times 18-28; cellula basil. 90-100 \times 20; sporidia 35 \times 3.

RHACHOMYCES Thaxter — Syll. IX p. 454, XIV p. 735, XVI p. 690.

1. *Rhachomyces anomalus* Thaxter, Proceed. of the Americ. Acad. 3177
my, 1902, p. 25.

Hab. in corpore *Conosomatis pubescentis*, Waverly Mass. Amer. bor. — Long. tot. 110-125; perithecia 75-90 \times 20-25; appendices longiores 75 μ . long.; sporidia 46 \times 4.

2. **Rhachomyces Berlesianus** Bacc. in N. giorn. bot. it. 1904, p. 418. 3178
tab. IV, f. 2. — Peritheciis singulis obovatis subhyalinis, trichogynis evanidis; receptaculo pluricellulari, cellulis triserialibus ad basin usque, sed basin versus gradatim tenuioribus; serie cellularum mediana clavato-fusiformi ex cellulis intense nigrefactis et ob parietum densitatem ad septa anulatis formata; serie laterali e cellulis hyalinis appendicem brevem atram obconicam in quoque apice gerentibus formata; antheridiis non visis.

Hab. in acaride Fedrizzia grossipede Can., Australia — Dedit cl. prof. ANT. BERLESE, cui merito dicata species.

CERAIOMYCES Thaxter. — Syll. XVI p. 682.

1. **Ceraomyces Selinæ** Thaxter, Proceed. of the Americ. Acad. 1902, 3179 p. 26.

Hab. in prothorace Selinæ Westermanni, in India orient. — Long. tot. 219-490; receptaculum 200-325 \approx 25-30; appendices 185-400; perithecia 125-150 \approx 30-35; cellula basilaris 22-25 μ . long.

ECTEINOMYCES Thaxter, Proceed. of the Americ. Acad. 1902, p. 26 (Ety. *ecteino* extendo et *myces*).

1. **Ecteinomyces trichopterophilus** Thaxter, l. c. p. 26. 3180

Hab. in elytris et abdomine Trichopterycis Haldemani Intervale N. H. Amer. bor. — Long. tot. 100-220; perithecia 55-65 \approx 22-28; appendices 75-100 μ . long.; receptaculum 95-140 \approx 7-12; sporidia 25 \approx 3.

LABOULBENIA Mont. et Rob. — Syll. VIII p. 909, IX p. 1132, XI p. 450, XIV p. 730, XVI p. 682.

1. **Laboulbenia acanthophora** Thaxter, Proceed. of the Americ. Acad. 3181 1902, p. 27.

Hab. in elytris Pericalli in India orient. — Tot. long. 580; perithecia 220 \approx 50; cellula basilaris 60 \approx 30; receptaculum 220 \approx 65; sporidia 75 \approx 4.5.

2. **Laboulbenia Bledii** Thaxter, l. c. p. 27. 3182

Hab. in elytris et abdomine Bledii Jacobinii, in California. — Long. tot. 290-360 μ .; receptaculum 220-275 \approx 45; appendices 90 μ . long.; perithecia 100-125 \approx 35-40.

3. **Laboulbenia borneensis** Thaxter, l. c. p. 28. 3183

Hab. in corpore Thyreopteris? spec., S. Borneo. — Long.

tot. 350-380; perithecia 100-120 \times 35-50; sporidia 45 \times 4; receptaculum 250-290 μ . long.

4. **Laboulbenia cauleculata** Thaxter, l. c. p. 29.

3184

Hab. in corpore Colpocacci, Athelotri, Mesothrisei specier. in insulis pluribus Oceaniæ. — Tot. long. 220-290; perithecia 125-165 \times 45-60; sporidia 58 \times 5; receptaculum 90-100 \times 35-40; appendices 125-185. — var. **prolixa** Thaxter l. c. p. 29. In corpore Mesothrisei tricoloris et M. collaris, Molokai, Maui et Oahu in insulis Oceanicis. — Tot. long. 450-670; perithecia 365-540 \times 55; sporidia 70 \times 5. — Var. **spectabilis** Thaxter, l. c. p. 30. In corpore Discoli et Metromeni specier., Oahu, Molokai, insulis Oceanicis. — Long. tot. 290-360; perithecia 165-200 \times 40-48.

5. **Laboulbenia columbiana** Thaxter, l. c. p. 30.

3185

Hab. in setis elytræ Anthonoderi concinni, Columbia. — Tot. long. 200-250 μ .; perithecia 90-110 \times 20-25; receptaculum 150 \times 30; appendices 40 μ . long.; sporidia 50 \times 4.

6. **Laboulbenia concinna** Thaxter, l. c. p. 31.

3186

Hab. in abdomine Casnoniæ sp., Buitenzorg Javae. — Tot. long. 325-375; perithecia 150-180 \times 33-45; stipes 30 \times 25; receptaculum 150-175 \times 55-65; appendices 125 μ . long.

7. **Laboulbenia corniculata** Thaxter, l. c. p. 31.

3187

Hab. in corpore Galeritæ carbonariæ in Brasilia. — Tot. long. appendic. 450-600 μ .; perithecia 165-240 \times 60-80; receptaculum 325-475 μ . long.; sporidia 90-110 \times 7.

8. **Laboulbenia Craspidophori** Thaxter, l. c. p. 32.

3188

Hab. in corpore Craspidophori, Panagæi, Microsomi spp. in India or., Calabar, Congo, Liberia Africae. — Tot. long. 280-500; perithecia 180-210 \times 48; receptaculum 150-325 μ . long.; appendices 300-375 μ . long.; sporidia 75 \times 5.

9. **Laboulbenia curvata** Thaxter, l. c. p. 33.

3189

Hab. in artubus Galeritæ carbonariæ et G. speciei in Brasilia. — Long. tot. 500-600 μ .; perithecia 325-400 \times 50-70; receptaculum 185-220 \times 75-90; sporidia 70-75 \times 4.

10. **Laboulbenia dentifera** Thaxter, l. c. p. 34.

3190

Hab. in elytra Notiobiæ dispositæ, Chontales Nicaragua. — Long. tot. 240; perithecia 125 \times 32; receptaculum 115 \times 55; appendices 220 μ . long.

11. **Laboulbenia Disenochi** Thaxter, l. c. p. 34.

3191

Hab. in corpore Disenochi et Brosconegnei spp. in insulis

- Hawai. — Tot. long. 290-360; perithecia 150-165 \approx 58-62; receptaculum 185-220; sporidia 65 \approx 6.
12. *Laboulbenia Dryptæ* Thaxter, l. c. p. 34. 3192
Hab. in corpore *Dryptæ ruficollis*, Natal Africa. — Long. tot. 220-250; receptaculum 135-180 μ . long.; appendices 220 μ . long.; perithecia 110-150 \approx 35-40.
13. *Laboulbenia dubia* Thaxter, l. c. p. 35. 3193
Hab. in abdomine *Philonthi politii*, Alverstoke Britannia. — Tot. long. 440-500; perithecia 165-185 \approx 55-65; receptaculum 320-325 \approx 75; appendices 220 μ . long.; sporidia 55 \approx 5.
14. *Laboulbenia Euchilæ* Thaxter, p. 36. 3194
Hab. in artubus *Euchilæ flavilabris*, in Brasilia. — Long. tot. 300-350; perithecia 100-30; receptaculum 220-250 \approx 35-40; appendices 150 μ . long.; sporidia 60 \approx 4,5.
15. *Laboulbenia Eudaliæ* Thaxter, l. c. p. 36. 3195
Hab. in elytris et artubus *Eudaliæ latipennis*, Port Denison Australia. — Long. tot. 250-350 μ .; perithecia 150-155 \approx 55; receptaculum 170-220 μ . long.; appendices 180-225 μ . long.; sporidia 72 \approx 5.
16. *Laboulbenia exigua* Thaxter, l. c. p. 37. 3196
Hab. in thorace *Chlænii biguttati* in Japonia. — Long. tot. 250-290; perithecia 86 \approx 26; receptaculum 220 μ . long.; appendices 150-184 μ . long.; sporidia 40 \approx 4.
17. *Laboulbenia flaccida* Thaxter, l. c. p. 37. 3197
Hab. in artubus *Casnoniæ subdistinctæ*, loco non indicato. — Tot. long. 175-220 μ .; perithecia 80-90 \approx 25-30; receptaculum 90-125 μ . long.; appendices 150-200 μ . long.; sporidia 40 \approx 4.
18. *Laboulbenia Tachyis* Thaxter, l. c. p. 38. 3198
Hab. in corpore *Tachyis incurvi* et *T. spp.*, Cambridge et Florida, Amer. bor. — Tot. long. 155 μ .; perithecia 60 \approx 16; receptaculum 110 μ . long.; appendices 45 μ . long.
19. *Laboulbenia formicarum* Thaxter, l. c. p. 39. 3199
Hab. in corpore *Lasii americani* et *Formicæ neogagatis*, Cambridge Mass. Amer. bor. — Tot. long. 70-80 μ .; perithecia 50-60 \approx 16-18; receptaculum 30-35 \approx 18; appendices 90 μ .; sporidia 30 \approx 2,5.
20. *Laboulbenia fusiformis* Thaxter, l. c. p. 39. 3200
Hab. in prothorace *Galeritæ carbonariæ*, in Brasilia. — Tot. long. 1650 μ .; perithecia 450-580 \approx 60-75; receptaculum 500-1000 \approx 70-75; appendices 275-375; sporidia 90 \approx 7.

21. *Laboulbenia hawaiiensis* Thaxter, l. c. p. 40.

3201

Hab. in corpore *Atelothri*, *Disenochi*, *Maunæ*, *Colpodisci*, *Mesothrisei* spp. in insulis oceanicis pluribus. — Tot. long. 280-360 μ .; perithecia 90-125 \approx 40-55; receptaculum 200-335; appendices 290-725 μ . long.; sporidia 65 \approx 5.

22. *Laboulbenia Helluodis* Thaxter, l. c. p. 41.

3202

Hab. in corpore *Helluodis nebricoidis*, Ceylon. — Tot. long. 360 μ .; perithecia 150-165 \approx 40-55; receptaculum 185-220 \approx 60; appendices 290 μ . long.; perithecia 150-165 \approx 40-55; sporidia 85 \approx 5.

23. *Laboulbenia Helluomorphæ* Thaxter, l. c. p. 42.

3203

Hab. in elytris *Helluomorphæ melanariæ* et *Pleurocanthi brevicollis* in Amazonia et Surinam. — Tot. long. 290-325; perithecia 130-140 \approx 35-40; receptaculum 180-220; appendices 185-300 μ . long.; sporidia 70 \approx 7.

24. *Laboulbenia humilis* Thaxter, l. c. p. 42.

3204

Hab. in elytris *Chlænii monogrammi* et *Chl. cyanipitis*, Hong-kong. — Tot. long. 250-275 μ .; perithecia 100-125 \approx 30; receptaculum 185 μ . long.; appendices 60-75 μ . long.; sporidia 50 \approx 5.

25. *Laboulbenia incerta* Thaxter, l. c. p. 43.

3205

Hab. in corpore *Galeritæ carbonariæ* in Brasilia. — Tot. long. 360-500 μ .; perithecia 185-250 \approx 60; receptaculum 185-290 \approx 70-80; appendices 200-250 μ . long.; sporidia 95-100 \approx 8.

26. *Laboulbenia insignis* Thaxter, l. c. p. 43.

3206

Hab. in thorace *Thyreopteri brevicollis*, Madagascar. — Tot. long. 600-650; perithecia 290-310 \approx 80-87; receptaculum 365-540 \approx 150; appendices 2200 μ . long.; sporidia 185 \approx 6.5.

27. *Laboulbenia japonica* Thaxter, l. c. p. 44.

3207

Hab. in artubus *Brachini* spec., in Japonia. — Tot. long. 420; perithecia 235 \approx 70; receptaculum 185 \approx 70; appendices 100-150 μ . long., sporidia 80 \approx 5.

28. *Laboulbenia Latonæ* Thaxter, l. c. p. 45.

3208

Hab. in corpore *Latonæ Spinolæ*, Bogota Columbiae. — Tot. long. 325-1125 μ .; perithecia 175-220 \approx 70; appendices 1150 μ . long.; sporidia 70 \approx 5.

29. *Laboulbenia media* Thaxter, l. c. p. 45.

3209

Hab. in corpore *Galeritæ* spp. Venezuela et Costarica. — Tot. long. 350-725 μ .; perithecia 180-290 \approx 40-48; stipes 55-

- 125 \approx 26-35; receptaculum 150-220; appendices 165-185; sporidia 45 \approx 4,5.
30. **Laboulbenia Megalonychi** Thaxter, l. c. p. 46. 3210
Hab. in prothorace Megalonychi patrobioidis et *M. angolensis* in Africa orient. — Tot. long. 300-435; perithecia 100-125 \approx 40-50; receptaculum 275-360 μ . long.; appendices 185 μ . long.; sporidia 58 \approx 5.
31. **Laboulbenia notata** Thaxter, l. c. p. 47. 3211
Hab. in corpore Thyreopteri armati, Madagascar. — Tot. long. 1150 μ .; perithecia 271 \approx 55; receptaculum 1100 \approx 75; appendices 185 μ . long.
32. **Laboulbenia obliquata** Thaxter, l. c. p. 48. 3212
Hab. in elytris Coptoderæ gagatinæ in Brasilia. — Long. tot. 325-360 μ .; perithecia 165-170 \approx 40; receptaculum 185-200 \approx 45; sporidia 45 \approx 3,5.
33. **Laboulbenia Œdichiri** Thaxter, l. c. p. 48. 3213
Hab. in elytris et abdomine Œdichiri sp. Rio de Janeiro Brasiliæ. — Tot. long. 250 μ .; perithecia 125 \approx 32; receptaculum 150 \approx 30; appendices 90 μ . long.; sporidia 55 \approx 5,5.
34. **Laboulbenia pallida** Thaxter, l. c. p. 49. 3214
Hab. in elytris Clivinæ fasciatæ et *Cl. dilutipennis*, in Guatemala et in Mexico. — Tot. long. 290-380; perithecia 125-150 \approx 60-70; receptaculum 220-300 μ . long.; appendices usque 150 μ . long.; sporidia 75 \approx 6.
35. **Laboulbenia perplexa** Thaxter, l. c. p. 49. 3215
Hab. in elytris et prothorace Galeritæ carbonariæ in Brasilia. — Tot. long. 500 μ .; perithecia 290-360 \approx 50-60; receptaculum 220 \approx 60-70; appendices 200-360 μ . long.; sporidia 90 \approx 7.
36. **Laboulbenia Planetis** Thaxter, l. c. p. 50. 3216
Hab. in thorace Planetis bimaculati in Java. — Tot. long. 400-425; perithecia 155-165 \approx 55-60; receptaculum 250 μ . long.; appendices 360-435; sporidia 65 \approx 5.
37. **Laboulbenia Platyprosopi** Thaxter, l. c. p. 51. 3217
Hab. in elytris et abdomine Platyprosopi beduini in Nubia. — Tot. long. 275-350; perithecia 150-185 \approx 36-45; receptaculum 150-220 \approx 60-70; appendices usque 360 μ .; sporidia 55 \approx 5.
38. **Laboulbenia producta** Thaxter, l. c. p. 52. 3218
Hab. in elytris Anchonoderi concinni in Columbia. — Tot. long. 220 μ .; perithecia 90-100 \approx 25; receptaculum 110 μ . long.; sporidia 55 \approx 4.

39. *Laboulbenia proliferans* Thaxter — Syll. XIV, p. 734. — var. *atrata* Thaxter, l. c. p. 53. 3219

Hab. in corpore *Ochlænii*, *Euchlænii*, *Craspedophori*, *Ehopalomeli* spp. in Africae variis locis. — Var. *cincta* Thaxter, l. c. p. 53. In corpore *Eudematis*, *Episcosomi*, *Craspedophori* in Africa, variis locis. — Var. *divaricata* Thaxter, l. c. pag. 53. In corpore *Ochlænii*, *Notonomi*, *Bembi Rhembi* spp., Borneo, Australia, Japonia, Java.

40. *Laboulbenia Sphyrriopsisidis* Thaxter, l. c. p. 53. 3220

Hab. in corpore *Mitronemi caliginosi*, in insulis Hawai. — Perithecia 90-110 × 40-48; receptaculum 220-250 μ . long.; appendices 150-185 μ . long.

41. *Laboulbenia Stomonaxi* Thaxter, l. c. p. 54. 3221

Hab. in elytris *Stomonaxi* sp., in Java. — Tot. long. 130-140 μ .; perithecia 65 × 25; receptacula 100-710 μ . long.; appendices 50-75 long.; sporidia 50 × 5.

42. *Laboulbenia texana* Thaxter. — Syll. XIV, p. 734. — var. *pendula* Thaxter, l. c. p. 55. 3222

Hab. in corpore *Brachyni geniculati* et *Br. lateralis*, Uruguay et Mexico.

43. *Laboulbenia Napoleonis* Bacc. in N. Giorn. bot. it. 1904, p. 417. 3223

— Peritheciis ovatis singulis in quoque exemplari, apice truncatis, subhyalinis, ore nigrefacto vel obscuriore; receptaculis subhyalinis stipitatis, stipite inferne uniseriato tricellulari, superne e quatuor cellulis biserialibus efformato, quarum serie altera perithecium gerente, altera singulam vel binas appendices filiformes hyalinas articulatas; cellulis insidentibus suberosis nigrificatis; antheridiis non visis.

Hab. in acaride *Antennophoro Foreli* Wasm., Luxemburg. — Eximio mycologo b. m. Aug. NAPOL. BERLESE, qui primus in Italia de *Laboulbeniomycetis* disseruit, merito dicata species.

44. *Laboulbenia argentinensis* Speg. Myc. argent. ser. II, 1902, 3224

p. 79. — Atro-fuliginea, hinc inde pauci-aggregata, erecta 350 μ . alta; stipite chlorino-fusco 220 μ . alto, ima basi rotundato, crassiuscule tunicato, infra medium cylindraceo 30-35 μ . crasso, supra medium obconico 70 μ . lat. apic., ejusdem ramulis v. pedicellis atro-opacis, 25 × 20-30; paraphysibus 6-8 linearibus 60 μ . long., toruloso-6-articulatis; articulis chlorinis ellipticis, 10-12 × 7-8; antheridiis obclavulatis 50 × 10, subfumosis, sursum attenuatis apice truncatis; peritheciis ellipticis, utrinque subtruncatis, 140-

150 \approx 50-60, ostiolo obsolete denticulato, fuligineis, subopacis; ascis clavulatis vel oblanceolatis 60 \approx 18, sessilibus, aparaphysatis; sporidiis subquaternis conglobatis, leniter arcuatis utrinque acutiusculis, 30-40 \approx 3-4, hyalinis.

Hab. ad oculos Brachyni cujusdam vivi, prope Buenos Ayres in Argentina (J. BRÉTHES).

COREOMYCES Thaxter, Proceedings of the Americ. Acad. of Arts and Sciences 1902, p. 56 (Etym. *coris*. cimex st *myces*).

1. **Coreomyces Corisæ** Thaxter, l. c. p. 56.

3225

Hab. in abdomine *Corisæ Kennicottii* spp. Arlington Mass. et Java, Amer. bor. — Tot. long. 275-290 μ .; perithecia 100-110 \approx 25-35; stipes 30-33 \approx 32-35; receptaculum 75-100 μ . long.; appendices 200-250 μ .; sporidia 85 \approx 6.

REPERTORIUM

FUNGORUM IN VOL. XVII. DESCRIPTORUM

secundum matrices (vegetabilia et animalia)

Obs. — *Ga. Gasteromycetæ.* — *Hy. Hymenomycetæ.* — *La. Laboulbeniaceæ.* —
P. Phycomycetæ. — *Py. Pyrenomycetæ.* — *Ur. Uredinaceæ.* — *Ust. Ustilagineæ.*

-
- | | |
|--|--|
| Abies — Hy. 191, 352, 435, 559, 568 bis,
625. — Ur. 1351 — Py. 1888, 1913,
2067 bis, 2266, 2295, 2403, 2739, 2791,
3099, 3150. | Adenostegia — Ur. 1090. |
| Acacia — Hy. 511. — Ur. 1835, 1536.
— Py. 2071, 2080, 2235, 2307, 2658. | Adenostyles — Ur. 930. |
| Acanthaceæ — Ur. 1384. | Adiantum — Ur. 919. |
| Acanthophyllum — Py. 1779. | Adolphia — Py. 2888. |
| Acanthospermum — Ur. 1003. | Ægiphila — Py. 1932. |
| Acer — Hy. 274, 569, 574. — Py. 1946,
2008, 2061, 2259, 2260, 2275, 2360,
2387, 2452, 2453, 2464, 2533, 2567,
2655, 2667, 2679, 3038. | Ægopodium — Ur. 1154. |
| Achillea — Ur. 949, 950. — Py. 2531,
2600, 2601, 2602. | Æsculus — Hy. 626. — Py. 2261, 2581. |
| Aciocarpha — Ur. 1063. | Æthusa — Ur. 1148. |
| Acnistus — Py. 2976. | Agaricus — P. 1681. |
| Aconitum — Ur. 1206. | Agathis — Py. 3124. |
| Acridocarpus — Py. 1849. | Agave — Py. 1971, 1988, 2732, 2790,
2941, 3123. |
| Aerulus — Ur. 1570. | Agropyrum — Ur. 1284. — Ust. 1662. |
| Acroptilon — Ur. 1004. | Agrostis — Py. 2962. |
| Actæa — Ur. 1320. — Py. 2137, 2238. | Ailanthus — Py. 2218. |
| Actinomeris — Ur. 965. | Ainslia — Ur. 1005. |
| Adenia — Ur. 1426. | Aira — Py. 2318. |
| | Albizzia — Ur. 1534. |
| | Aleurites — Hy. 426. — Py. 2074. |
| | Alisma — P. 1747. — Py. 1972, 2626,
2692. |
| | Allium — Ur. 888, 911, 912, 1224. —
P. 1773. |
| | Allophyllum — Ur. 1512. |

- Alnus — Hy. 203, 503 *bis*, 513, 533 *ter*,
 535, 563, 569 *bis*, 575, 599 *ter*,
 604 *bis*, 607 *bis*, 611, 615, 621 *ter*,
 624 *bis*, 635, 637, 647, 727. — Py.
 1879, 1918, 2019, 2243, 2311, 2387,
 2407, 2444, 2463, 2703.
 Alsine — Py. 2638, 3639.
 Alstroemeria — Ur. 1232.
 Althæa — Ur. 1425.
 Alyssum — Ur. 1195.
 Alyxia — Py. 2975.
 Ambrosinia — Ust. 1648.
 Amelanchier — Ur. 1553. — Py. 2650,
 3086, 3087, 3159.
 Amorpha — Py. 2016.
 Ampelopsis — Py. 2279.
 Amphicarpa — Ur. 1436.
 Amsonia — Py. 1965.
 Amygdalus — Hy. 572. — Py. 2368.
 Anacardium — Py. 1859.
 Ananassa — Py. 3059.
 Anchusa — Ur. 1277.
 Ancylanthus — Ur. 1377, 1484.
 Andira — Py. 1801, 2715.
 Andropogon — Ur. 1269, 1270. — Ust.
 1613, 1624 *bis*, 1648, 1649, 1654,
 1669 *bis*. — Py. 2226.
 Androsace — Ust. 1589.
 Androsæmum — Py. 2269.
 Andryala — Ur. 1430.
 Anemone — Ur. 1208, 1210, 1211, 1212,
 1456. — Ust. 1672. — Py. 1945.
 Anethum — Ur. 1143.
 Angelica — Ur. 1159, 1160. — Py. 2378.
 Anguillula — P. 1751.
 Anisacanthus — Ur. 1083.
 Annesorhiza — Ur. 1508.
 Anoda — Ur. 1188.
 Anogra — Ur. 1413.
 Anona — Py. 1871, 3044.
 Anonaceæ — Py. 2374, 3061.
 Anthemis — Ur. 953.
 Anthephora — Ur. 1572.
 Anthistiria — Py. 2178.
 Anthoceron — Ust. 1667.
 Anthocleiste — Ur. 1812.
 Antholiza — Ur. 893.
 Anthospermum — Ur. 1069.
 Aphelandra — Ur. 1386.
 Aphyllanthes — Py. 2619.
 Apium — Ur. 1147.
 Aplopappus — Ur. 1006.
 Apocynaceæ — Py. 3118.
 Apostasia — Py. 3023.
 Aqua — P. 1691, 1728, 1758.
 Aquilegia — Ur. 1205, 1460.
 Araceæ — Py. 2411, 3036.
 Aralia — Ur. 1163.
 Araucaria — Hy. 198.
 Arbutus — Py. 1832.
 Arcangelia — Ur. 1160.
 Arctostaphylos — Ur. 1506.
 Ardisia — Py. 1956, 3094.
 Areca — Py. 2798, 2801.
 Arenaria — Ur. 1214.
 Ariona — Py. 2926.
 Aristea — Ur. 1228.
 Aristida — Py. 3155.
 Aristolochia — Ur. 1219.
 Aronicum — Ur. 966.
 Arracacha — Ur. 1164.
 Arrhenatherum — Ur. 1283.
 Artemisia — Ur. 955, 956, 957. — Py.
 2544, 3039.
 Arthonia — Py. 1997.
 Arthraxon — Py. 2023.
 Artocarpus — Ga. 803.
 Arum — Py. 1933.
 Arundinella — Ust. 1647.
 Arundinaria — Py. 2716, 2914, 2961.
 Asclepiadaceæ — Py. 3095.
 Aspalathus — Ur. 868.
 Asparagus — Hy. 578. — Ur. 1230.
 Asperula — Ur. 1080, 1300, 1302.
 Aspicilla — Py. 1987, 1975, 1977, 1993,
 1999, 2187, 2231.
 Aspidium — Ur. 917, 922. — Py. 2925,
 3069, 3092.
 Asplenium — Ur. 916.
 Aster — Ur. 954, 1246. — Py. 2499.
 Asteriscus — Py. 1732.
 Asteromæa — Ur. 1475.
 Astilbe — Ur. 1333.
 Astragalus — Py. 2439, 2648, 2677.

- Astrocaryum* — Py. 2912.
Athamanta — Ur. 1158.
Athyrium — Ur. 923.
Atractylis — Ur. 984.
Atragene — Ur. 1201. — Py. 2563.
Atrichum — Hy. 564 *bis*.
Atriplex — Ur. 1463.
Aucuba — Py. 3049.
Anerswaldia — Py. 2822.
Averrhoa — Hy. 204.

Baccharis — Ur. 932, 933, 934, 935. —
Py. 1804, 1817, 1826, 1839.
Bactris — Py. 1791, 1825.
Balsamorrhiza — Py. 2603.
Bambusa — Hy. 425. — Py. 1909, 1910,
2123, 2316, 2761, 2813, 2845, 3014,
3060, 3075.
Banksia — Py. 3012, 3054.
Barkhausia — Ur. 1053.
Barneoudia — Ust. 1672.
Barroetea — Ur. 1025.
Basanacantha — Ur. 1469 *ter*.
Basella — Ur. 878.
Bauhinia — Ur. 1527. — Py. 1812,
1827, 3033.
Begonia — Py. 3063.
Bellucia — Py. 3037.
Berberis — Hy. 729. — Ur. 1199, 1200,
1233, 1453, 1454. — Py. 1828, 2532,
2665, 2681.
Berlinia — Py. 2821, 3002.
Berula — Ur. 1411 *bis*.
Beta — Ust. 1644 *bis*. — Py. 1778.
Betula — Hy. 99, 200, 342 *bis*, 504 *bis*,
525, 535, 562, 563 *bis*, 575, 599 *ter*,
604 *bis*, 614, 621, 627, 635, 657, 728.
— P. 1782. — Py. 2707.
Biatora — Py. — 2234, 2469, 2521.
Bidens — Py. 2683.
Bigelovia — Ust. 1653 *bis*.
Rignonina — Py. 2161, 2391.
Bignoniaceæ — Ur. 1087, 1088, 1491. —
Py. 1908, 2251.
Bilimbia — Py. 2468.
Bisontella — Ur. 1443.
Blainvillea — Ur. 1473.

Blechnum — Ur. 914, 1583, 1584.
Blepharis — Ur. 1082.
Boehmeria — Ur. 1330.
Boerhavia — Ust. 1658. — P. 1762.
Bolbophyllum — Py. 2748.
Boletus — P. 1729. — Py. 2799.
Boltonia — Ur. 1868.
Bombus — Py. 1798, 2508.
Bonannia — Ur. 1151.
Boopsis — Ur. 1481.
Boronia — Ur. 1184.
Borreria — Ur. 1071, 1376.
Borrichia — Ur. 1367.
Bossiaea — Ur. 1435.
Bouletoua — Ust. 1610.
Bouvardia — Ur. 842, 1070.
Brachylæna — Py. 3107.
Brachypodium — Ur. 1273, 1280, 1289.
— Py. 2317, 2519.
Bractis — Py. 3139.
Brassica — Hy. 570. — Py. 2026.
Braya — Py. 2484.
Briekellia — Ur. 1013, 1014, 1399.
Brodiaea — Ur. 1225.
Bromus — Ur. 1273, 1282, 1576. — Ust.
1663.
Brongniartia — Ur. 1348.
Brownia — Py. 2884.
Brunella — P. 1742.
Bryum — Ust. 1666.
Ruddleya — Py. 1842.
Bupleurum — Py. 1949.
Burseraceæ — Ur. 1423.
Buxus — Py. 2219, 2277, 2381, 2738,
2830.
Byrsonima — Hy. 521. — Py. 2855,
3038, 3112.

Cachrys — Ur. 851. — Py. 1948.
Cactææ — Py. 2215.
Cæsalpinia — Ur. 1346. — Py. 2485.
Calamagrostis — Ur. 1273, 1578.
Calamus — Hy. 79, 669. — Ust. 1677.
— Py. 2015, 2324.
Calandrinia — Ust. 1590.
Calathea — Py. 3025, 3027, 3104.
Calendula — Ur. 958.

- Calimeris — Ur. 1026.
 Callirrhoe — Ur. 1425.
 Callopisma — Py. 2300.
 Calluna — Hy. 658. — Py. 1964, 2252.
 Caltha — Ur. 1207.
 Calycera — Ur. 1061, 1062.
 Camellia — Py. 2594.
 Campanula — Ur. 1320 *bis*.
 Camptosema — Ur. 867.
 Canna — Ur. 1234.
 Cannabis — Ur. 1548. — P. 1679.
 Caragana — Ur. 872. — Py. 2725.
 Cardamine — Ur. 1320 *bis*.
 Cardiandra — Ur. 1439.
 Cardiospermum — Ur. 1418 *bis*.
 Carduncellus — Ur. 1000, 1001.
 Carduus — Ur. 993, 994, 995.
 Carex — Hy. 627 *bis*. — Ur. 896, 1240, 1242 ad 1251, 1565, 1568 — Ust. 1600, 1646. — Py. 2176, 2416, 2517, 2518, 2519, 2520, 2671, 2699, 2848, 3102.
 Carica — Py. 2807.
 Carludovicia — Py. 3001.
 Carphochæta — Ur. 1366.
 Carpinus — Hy. 538, 569 *ter*, 651, 730. — Py. 1813, 2404, 2465, 2572.
 Carpodinus — Ur. 1502.
 Carum — Ur. 1142.
 Carvalhoa — Ur. 1136.
 Carya — Py. 2285.
 Cascarilla — Py. 2574.
 Casearia — Py. 2902, 3004.
 Cassandra — Ur. 1313 *ter*.
 Cassia — Ur. 1337 ad 1343, 1432, 1531, 1532, 1533. — Py. 2386, 2573, 3064.
 Cassupa — Py. 3117.
 Cassytha — Py. 2150.
 Castanea — Hy. 283, 424. — Ur. 1329. — Py. 2014, 2434, 2940.
 Castilleja — Py. 2494, 2636, 2689.
 Castilloa — Py. 1874.
 Casuarina — Hy. 510.
 Catalpa — Py. 2289, 2308, 2905.
 Catapyrenium — Py. 2584.
 Cattleya — Py. 1970.
 Cayponia — Ur. 840.
 Ceanothus — Hy. 61.
 Cecropia — Hy. 436. — Py. 2932.
 Cedrela — Ur. 1543.
 Celastrus — Py. 2276.
 Celosia — Ur. 880.
 Celtis — Py. 1907, 2087, 2661, 3039.
 Centaurea — Ur. 975, 976, 977, 978, 979, 1243. — Py. 2383, 2684, 2685.
 Centrolobium — Py. 2387, 2967.
 Centrophylum — Ur. 981.
 Cephalanthus — Ur. 1378, 1485. — Py. 3080.
 Cerastes — P. 1734.
 Cerastium — Py. 2474.
 Cerasus — Hy. 54. — Py. 2644.
 Ceratonia — Py. 3142.
 Cercocarpus — Py. 2651, 3077, 3078, 3153.
 Cerefolium — Ur. 1143.
 Cereus — Py. 2153, 2542, 2702.
 Cestrum — Ur. 844, 1093.
 Chærophylum — Ur. 1144, 1145, 1146.
 Chamæcyparis — Ur. 1552.
 Chamæsaracha — Ur. 1099.
 Chenopodiaceæ — Ur. 1217.
 Chionachne — Py. 2921.
 Chloris — Ust. 1611.
 Chondrilla — Ur. 1056.
 Chrysanthemum — Ur. 951, 1241. — Ust. 1636.
 Chrysophyllum — Hy. 160, 526. — Ur. 1507.
 Chrysopogon — Ust. 1653.
 Chrysopsis — Ur. 972.
 Chrysotamnus — Py. 2543.
 Chusquea — Py. 2750, 2849.
 Cichorium — Ur. 1055.
 Cinchona — Ur. 1486. — Py. 1889, 2730, 2745, 2746, 3128, 3143.
 Cirsium — Ur. 990, 992, 995, 996, 997. — Py. 2392.
 Cissus — Ust. 1644 *ter*, 1645.
 Cistus — Hy. 370. — Py. 1890, 2536.
 Citharexylon — Py. 3074.
 Citrus — Hy. 304. — Py. 1373, 2726, 2843.
 Cladium — Py. 1864.

- Cladophora — P. 1743.
 Clathorix — Ust. 1656.
 Clarionea — Ur. 1027.
 Clematis — Ur. 1202, 1458. — Py. 2351,
 2472, 2634, 2635, 2838.
 Clerodendrum — Ur. 1393, 1495, 1496.
 — Py. 1847.
 Clethra — Ur. 1331.
 Clibadium — Hy. 190. — Ur. 1365.
 Clidemnia — Py. 1806.
 Clitandra — Ur. 1503.
 Clitoria — Ur. 860.
 Cnicus — Ur. 991.
 Coccides — Py. 2836, 2843.
 Coccoloba — Py. 3010.
 Cochlearia — Ur. 1196.
 Coeos — Ust. 1678. — Py. 1832, 2508,
 3070, 3120, 3138.
 Coffea — Hy. 432, 610, 631. — Py.
 1372, 1875, 1876, 1878, 1880, 2001,
 2018, 2057, 2156, 2726, 2728, 2744,
 2745, 2757, 2811, 2823, 2828, 2834,
 2989, 2997, 3022, 3032.
 Collema — Py. 2427.
 Collomia — Ur. 1400.
 Comarum — Py. 2384.
 Combretum — Ur. 1540, 1541.
 Commelina — Ur. 895, 1304.
 Comptonia — Py. 2278.
 Compositæ — Ur. 1058, 1059. — Py.
 1870.
 Conferva — P. 1741.
 Coniferæ — Hy. 8, 32, 73, 127, 163,
 403, 643. — Py. 1985.
 Conium — Py. 2756.
 Conocarpus — Py. 2449.
 Conyza — Ur. 959.
 Cooperia — Ur. 1231.
 Copaifera — Py. 1815.
 Copernicia — Py. 3149.
 Coprinus — Hy. 336.
 Chorocoropsis — Ur. 925.
 Cordia — Ur. 1498. — Py. 1807.
 Cordylanthus — Ur. 1090.
 Cornus — Hy. 626. — Py. 1837, 1898,
 2265, 2387, 2464, 2599.
 Coronilla — Py. 2140.
 Correa — Py. 1882 *bis*.
 Corticium — Py. 2714.
 Cortusa — Ur. 1291.
 Corylus — Hy. 492 *ter*, 565, 571 *bis*,
 599 *ter*, 614 *bis*, 620, 624 *bis*, 641 *bis*,
ter. — Py. 2282, 2291, 2429, 2613.
 Cosmocladium — P. 1740.
 Cosmus — Ust. 1637.
 Coulterophytum — Ur. 1168.
 Courtoisia — Ur. 1571.
 Cousinia — Ur. 1001.
 Coussapoa — Py. 1863.
 Coutoubea — Py. 2956.
 Cratægus — Hy. 446, 713. — Ur. 1433.
 — Py. 1896, 2206, 2387, 2566, 2568.
 Crepis — Ur. 1037, 1039, 1053, 1473,
 1479. — P. 1744.
 Crinum — Ur. 1469.
 Crotalaria — Ur. 1433, 1529, 1530.
 Croton — Ur. 906. — Py. 2437, 2899,
 3050, 3127.
 Crucianella — Ur. 1079.
 Cryptotania — Ur. 1162.
 Cuphæa — Ur. 1298, 1299.
 Cucumis — P. 1765.
 Cucurbita — P. 1765.
 Cydonia — Py. 2270.
 Cymboseria — Py. 1057.
 Cynoetonus — Ur. 1135. — Py. 1821.
 Cynosurus — Ur. 900.
 Cyperacæ — Py. 2315, 3106.
 Cyperus — Ur. 1253, 1566. — Ust. 1630,
 1631, 1632.
 Cystoclenium — P. 1753.
 Cytharexylon — Hy. 203, 407, 516.
 Cytisus — Ur. 1434. — Py. 2476.
 Dacampia — Py. 2136, 2138.
 Dalbergia — Ur. 1518, 1519.
 Dalbergiaceæ — Py. 2969.
 Dalechampia — Ur. 1417, 1418.
 Dampiera — Ur. 1066.
 Danthonia — Ur. 1577. — Ust. 1602,
 1603, 1626.
 Daphne — Py. 2398.
 Daphnopsis — Py. 2972.
 Daucus — Ur. 1411 *ter*.

- Deeringia — Ur. 881.
 Delphinium — Ur. 1459. — Py. 1774, 2186.
 Derris — Ur. 1334. — Py. 2882, 2950.
 Desmanthodium — Ur. 1029.
 Desmodium — Ur. 858, 859, 1522, 1523.
 Deutzia — Py. 1893, 2205, 2675.
 Diapensia — Py. 2365.
 Diaspis — Py. 2823.
 Dichromera — Ust. 1599, 1674.
 Dioliptera — Ur. 843.
 Dictyoloma — Py. 3043.
 Dierama — Ur. 1229.
 Digitalis — Py. 2163.
 Digitaria — Ust. 1606.
 Dioecia — Py. 2886.
 Dioscorea — Ur. 1561.
 Diospyros — Ur. 1406, 1407. — Py. 3030.
 Diplachne — Ur. 1281.
 Diplasia — Ust. 1601.
 Diplothemium — Py. 3121.
 Diplotomma — Py. 2530.
 Dirca — Ur. 1254.
 Dissotis — Ur. 1542.
 Distichlis — Ust. 1614.
 Dolichotis — Py. 2059.
 Dorema — Ur. 1167.
 Doronicum — Ur. 967, 968.
 Dorstenia — Ur. 1550.
 Dracaena — Ust. 1598. — Py. 2509.
 Draparnaldia — P. 1757.
 Dryas — Py. 1983, 2143, 2210, 2237, 2245, 2481, 2482, 2990.
 Drymaria — Ur. 1213.
 Drymis — Py. 3112.
 Dulichium — Ur. 1252.
 Duvana — Py. 1840.
 Durio — Py. 2891.
 Dysoxylon — Py. 3008.
 Ebenaceæ — Py. 2971.
 Echinodorus — Ust. 1625.
 Echinopsis — Ur. 998.
 Echinopteris — Ur. 1182.
 Echium — Py. 2301, 2491, 2610.
 Edwinia — Py. 2579, 2617.
 Elæodendrum — Py. 3110.
 Elæagnus — Ur. 1220. — Py. 1900.
 Electra — Ur. 1030.
 Elettaria — Py. 2753.
 Eleusine — Py. 2920.
 Elymus — Ur. 1273. — Ust. 1664. — Py. 2628.
 Empetrum — Py. 2963, 2999.
 Encephalum — Py. 2604.
 Encianthus — Ur. 1408.
 Endocarpum — Py. 2184.
 Endopyrenium — Py. 2230.
 Entada — Ur. 1345.
 Enteropogon — Ur. 1276.
 Ephedra — Py. 2612.
 Epicampis — Ur. 1275.
 Epidendrum — Ur. 1555.
 Epigæa — Py. 2366.
 Epilobium — Ur. 1174, 1469 *bis*.
 Equus — P. 1709.
 Eragrostis — Ur. 898. — Ust. 1615. — Py. 2214.
 Eranthis — P. 1767.
 Erica — Py. 2236, 3031.
 Ericaceæ — Ur. 908.
 Erigeron — Ur. 960, 1247, 1357. — Py. 2165.
 Eriocaulon — Ust. 1611 *bis*, 1668.
 Eriochloa — Ust. 1650.
 Eriogonum — Py. 2637.
 Eriophorum — Py. 2333, 2624.
 Eritrichium — Ur. 1395.
 Eryngium — Ur. 1409.
 Erythrina — Hy. 102. — Py. 1885, 2344, 2785.
 Escallonia — Py. 1957, 3046.
 Eucalyptus — Hy. 78, 244. — Py. 2571, 2995, 3147.
 Eucharis — Lr. 1559.
 Eugenia — Ur. 1539. — Py. 2145, 2927, 2938, 2970.
 Eupatorium — Ur. 961, 962, 1477. — Py. 1995.
 Euphorbia — Ur. 854, 855, 1415. — Py. 1780, 1781, 2485, 2531.
 Euphorbiaceæ — Py. 1866.
 Euphrasia — P. 1746.
 Eupomatia — Py. 3062.

- Euterpa* — Py. 2009.
Eutrema — Ur. 1197.
Eutypa — Py. 1887. 2810.
Evolvulus — Ur. 1128.
Evonymus — Py. 2596.
- Faba* — Py. 2008.
Fagus — Hy. 30, 207, 341, 567, 596, 726, 731. — Py. 1981, 1990, 2023, 2170, 2387, 2441, 2459, 2460, 2505, 2548, 2569, 2736, 2774, 2940, 2988.
Fatoua — Ur. 885.
Fendlera — Py. 2353, 2545, 2653.
Ferula — Ur. 849, 1411, 1411 *bis*.
Ferulago — Ur. 848.
Festuca — Ust. 1612. — Py. 2700.
Ficus — Ga. 814. — Ur. 1551. — Py. 1942, 2008, 2012, 2082, 2741, 2933.
Fimbristylis — Ur. 1569.
Fimius — Hy. 292, 593, 294, 363, 364, 365, 367 *bis*. — P. 1684, 1686, 1689, 1690, 1705, 1716, 1718, 1719, 1720, 1725, 1727, 1728. — Py. 1784, 1794, 1796, 1797, 1799, 2027 ad 2055, 2091, 2254, 2345 ad 2348, 2350, 2353 ad 2559, 2720, 2758.
Flacourtiaceae — Py. 3018.
Floerkea — P. 1770.
Floscopa — Ur. 1556.
Fourcroya — Py. 1966.
Frangula — Hy. 563, 616, 624 *ter*, 637, 645.
Franseria — Ur. 1024.
Fraseria — Ur. 847, 1402.
Fraxinus — Hy. 246. — Ur. 1287, 1404. — Py. 1980, 2297, 2456, 2577, 2711, 2809.
Fritillaria — Ur. 890.
Fuirena — Ur. 1564.
- Gadua* — Py. 2844, 2981, 3034.
Gagea — Ur. 1228.
Galactis — Ur. 969.
Galasia — Ur. 1364.
Galatella — Ur. 970.
Galenia — Ur. 1215.
- Galeobdolon* — Py. 2496.
Galera — Py. 2796.
Galium — Ur. 1078, 1801. — Py. 2256, 2489.
Garcilassa — Ur. 1476.
Garcinia — Py. 2436, 2841, 3020.
Gardenia — Hy. 644. — Ur. 1490.
Gardoquia — Py. 3065.
Gasparrinia — Py. 1818, 2374.
Gastrolobium — Py. 2246.
Gaultheria — Py. 1862.
Gaylussacia — Py. 2909.
Gayophytum — Ur. 1171.
Gelatina — P. 1685, 1687, 1688, 1708, 1721, 1722, 1723, 1724.
Geophila — Ur. 1433.
Geranium — Ur. 856, 1421.
Gerardia — Ur. 1089.
Geum — Py. 1853.
Gladiolus — Ur. 891.
Glechoma — Py. 2164.
Gleditschia — Py. 3136.
Glœosporium — P. 1737.
Glyceria — Py. 2520, 2629.
Glycine — Ur. 1520. — Py. 2386.
Glycosma — Py. 2149.
Gnaphalium — Py. 1805, 2201.
Gomphrena — Ur. 1216.
Gonospermum — Ur. 1023.
Goodenia — Py. 2147.
Gossypium — Py. 1735.
Grabowskia — Ur. 1293.
Graminaceae — Hy. 100. — Py. 2227, 2228, 2371, 2627, 2706, 2754.
Grevillea — Py. 1814.
Grewia — Py. 2202.
Grindelia — Ur. 1363. — Ust. 1658 *bis*.
Guardiola — Ur. 1022. — Ust. 1657.
Guarea — Hy. 66. — Ur. 1429, 1430. — Py. 3009.
Guatteria — Ur. 1446, 1447, 1448, 1449.
Guettarda — Py. 3035.
Gyalolechia — Py. 2328, 2772.
Gymnogramme — Ur. 1582.
Gymnopogon — Ur. 1272. — Py. 2942.
Gynerium — Py. 2630, 2982, 3029.
Gyrophora — Py. 2007, 2329.

- Habenaria* — Ur. 1465.
Hæmatoxylon — Hy. 448.
Hæmodoros — Ur. 1233.
Hamamelidis — Ur. 1412.
Haplophyllum — Ur. 1516.
Hedera — Py. 1941, 2306, 2379, 2993.
Helenium — Py. 2391.
Helianthella — Ur. 1021, 1362.
Heliconia — Py. 2959.
Helinus — Ur. 1510.
Heliocarpus — Ur. 1177.
Heliopsis — Ur. 978.
Heliotropium — Ur. 1121.
Helleborus — Py. 2672.
Heppia — Py. 2325, 2327.
Heraclium — Ur. 1156, 1157. — Py. 2448.
Hertia — Py. 2154.
Hesperaloe — Py. 1993.
Heteropteris — Ur. 1181. — Py. 3071.
Heterosphæria — Py. 2319.
Hevea — Py. 2690, 2955.
Hibiscus — Ur. 1255, 1515. — Py. 2218, 2390, 3035.
Hieracium — Ur. 1044. — Py. 2257.
Hilaria — Py. 2347.
Hippophæ — Py. 2022, 2305, 2503.
Hoffmannia — Hy. 147.
Holcus — Ur. 1271.
Homojanthus — Ur. 1020.
Hordeum — Ur. 1263, 1273. — Ust. 1659.
Houstonia — Ur. 1072.
Humiria — Py. 3007.
Humulus — Py. 2324.
Hura — Py. 2974.
Hyacinthus — Py. 2008.
Hyalotheca — P. 1740.
Hydrangea — Ur. 1440.
Hydrocharis — Ust. 1634, 1671.
Hyoscyamus — P. 1769.
Hypericum — Py. 2293, 2375, 2376, 2576, 3097.
Hyphæne — Py. 1869.
Hypochæris — Ur. 1031.
Hypocrellia — Py. 2741.
Hypoxylon — Py. 2342.
Hyptis — Ur. 1113, 1493. — Py. 1811, 1828.
Icerba — Py. 3187.
Ichnaspis — Py. 2323.
Ilex — Hy. 420. — Py. 2381, 2564, 3040, 3109, 3146 bis.
Impatiens — Ur. 1179.
Imperata — Ur. 1264.
Inga — Ur. 871, 1523. — Py. 3076, 3126.
Indigofera — Ur. 869, 870.
Insecta — Py. 2352 ad 2371. — La. 3160 ad 3225.
Inula — Ur. 1361. — Py. 2701.
Ipomœa — Ur. 1067, 1129, 1294, 1295, 1296, 1297, 1388. — Py. 2397.
Iponema — Hy. 405. — Py. 1851.
Iriartia — Py. 2760.
Iris — Ur. 1227. — Py. 2312, 2511, 2624, 2693, 2694, 2695, 2696.
Isochnosiphon — Ur. 1558.
Iseilema — Ust. 1617.
Isoglossa — Ur. 1333.
Ivesia — Ur. 1323.
Jacquemontia — Ur. 1401.
Jambosa — Ur. 1175.
Jasminum — Ur. 1137, 1138, 1403.
Jasonia — Ur. 1472.
Jatropha — Ur. 853.
Johannesia — Ur. 1514.
Jostephane — Ur. 1019.
Juglans — Py. 2340, 2405, 2504, 2614, 2660, 2691, 2808.
Juncus — Ur. 1239, 1563. — Py. 2413, 2514, 2693.
Juniperus — Hy. 449. — Ga. 787. — Ur. 927, 928, 929. — Py. 1944, 2166, 2280, 2333, 2546, 3034.
Jurinea — Ur. 993.
Jussiaea — Ur. 1172.
Kentia — Py. 2619.
Knautia — Py. 502.
Körberliella — Py. 2422.
Kraunhia — Ur. 913.

Kretzschmaria — Py. 2769, 2770.

Krigia — Ur. 1018.

Kundmannia — Ur. 1169.

Lactuca — Ur. 1032, 1033, 1034, 1040, 1245.

Laguncularia — Py. 1845.

Lappa — Ur. 985.

Larix — Hy. 346, 458, 514, 654. — Py. 2457, 3145.

Laserpitium — Ur. 1155. — Py. 2873.

Lathyrus — Py. 2488.

Lauraceæ — Py. 1959, 1960, 2393, 2394, 2395, 2396, 2391, 3072.

Lauxania — P. 1732.

Leandra Py. 2930.

Lecania — Py. 2000.

Lecanora — Py. 2002, 2193, 2200, 2433.

Lecidea — Py. 2194, 2322, 2324, 2330, 2466, 2467, 2471, 2773.

Lecidella — Py. 2232.

Lecythidaceæ — Py. 1787.

Lecythis — Py. 2122.

Ledum — Ur. 1313 *bis*.

Leguminosæ — Py. 1838, 1919, 2968.

Leonotis — Ur. 1110.

Leontice — Ur. 1455.

Leontodon — Ur. 1035.

Lepachys — Py. 1958.

Lepargyrea — Py. 1894.

Lepidagathis — Py. 1822.

Lepidium — Py. 2586.

Lepidobolus — Ust. 1669.

Leptochloa — Ust. 1605.

Leptogium — Py. 2424.

Leschenaultia — Ur. 1065, 1372.

Leucæna — Ur. 1347.

Leucas — Ur. 1115.

Leuceria — Ur. 1060.

Leucobryum — Hy. 655. — Ga. 795.

Leucopogon — Py. 2249.

Leucopsis — Py. 3066.

Leuzea — Ur. 1017.

Liabus — Ur. 1318.

Lianæ — Py. 2820.

Libertia — Py. 3057.

Libocedrus — Ur. 926.

Ligna — P. 1717.

Ligusticum — Ur. 1139.

Ligustrum — Py. 2334.

Lilium — Ur. 1466.

Linaria — Pk. 2221.

Lindsæa — Ur. 1545.

Linum — Ust. 1639. — Py. 2621.

Lippia — Ur. 1122, 1123, 1124, 1394, 1494. — Py. 1843, 2493.

Liriodendron — Py. 2061.

Lithoica — Py. 2185.

Lithospermum — Ur. 1396. — Py. 2556.

Litsea — Ur. 1198. — Py. 1802, 1840, 2530.

Lobeliaceæ — Py. 1848.

Locusta — P. 1682, 1683.

Lomatia — Py. 1867.

Lonchocarpus — Ur. 1309, 1521. — Py. 1850, 2235, 2946, 2935.

Lonicera — Hy. 708. — Py. 2159, 2400.

Lopadium — Py. 2583.

Lophanthus — Ur. 1114.

Loranthus — Py. 1823.

Lugoa — Ur. 1016.

Lupinus — Ur. 862. — Py. 2477, 2478, 2530.

Luzula — Ur. 1238. — Ust. 1632 *ter*. — Py. 1973, 2175, 2414, 2623.

Lychnis — Ur. 877.

Lycium — Ur. 1094.

Lycopodium — Py. 1974.

Lycurus — Ust. 1616.

Macaranga — Py. 1790, 1819.

Machærium — Py. 1953, 2878, 2879, 2947.

Machilum — Ur. 1445.

Macrosiphonia — Py. 2910.

Macrozamia — Py. 1996.

Madia — Ur. 963, 1310 *bis*.

Magnolia — Py. 1915, 2139, 2362, 2377, 2642.

Mahonia — Ur. 1452. — Py. 3135.

Majanthemum — Py. 2641.

Malpighiaceæ — Py. 3017, 3113.

Malvastrum — Py. 3041.

Mangifera — Hy. 256, 515. — Py. 1877, 2372.

- Manihot — Hy. 536. — Py. 1810, 1854.
 2666.
 Manisurus — Ur. 1809 *bis*.
 Maprounea — Ur. 1414, 1513. — Py.
 2893.
 Maranthaceæ — Py. 3073.
 Maregravia — Py. 3073.
 Marchantia — Py. 2299.
 Marsdenia — Ur. 1130, 1134.
 Mauritia — Py. 1846, 1973, 2806.
 Maxillaria — Py. 2762.
 Medicago — Ur. 1517. — P. 1748. —
 Py. 1927.
 Melaleuca — Hy. 417. — Py. 2904, 2994.
 Melananthus — Ur. 1335.
 Melasphærule — Ur. 894.
 Melastoma — Py. 3006.
 Melia — Py. 2745, 2815.
 Meliaceæ — Py. 2239, 2336, 2951.
 Melica — Ur. 1268.
 Melicoytus — Py. 2943.
 Melilotus — Py. 2588.
 Meliola — Py. 1824.
 Meliosma — Hy. 407.
 Memora — Ur. 1088, 1491. — Py. 3052.
 Meniscium — Py. 1789.
 Mentha — Py. 2562.
 Mentzelia — Ur. 1310, 1544.
 Menziesia — Hy. 719. — Ur. 1313.
 Mercurialis — Ur. 852, 1416, 1536.
 Mertensia — Ur. 1398.
 Metastelma — Ur. 1132.
 Miconia — Py. 2822, 2923.
 Microchloa — Ur. 899.
 Microlonchus — Ur. 980.
 Micromeria — Ur. 1111.
 Microtis — Ur. 986 *bis*.
 Mikania — P. 1761. — Py. 2954.
 Millettia — Py. 1937.
 Mimosa — Ur. 1336. — Py. 2141.
 Mirabilis — Py. 1924.
 Modiola — Ur. 1136.
 Mogiphanes — Ur. 1546.
 Monardella — Ur. 1119.
 Molinia — Py. 2179, 2520.
 Monimia — Hy. 186.
 Monnina — Py. 2877.
 Monopsis — Ur. 1450.
 Monotes — Py. 2433.
 Morus — Ur. 1464, 1549. — Py. 2008.
 Moschosma — Ur. 1392.
 Mucor — P. 1704, 1726.
 Mucuna — Py. 2218, 2336.
 Mühlembergia — Ur. 1255. — Ust.
 1618, 1619.
 Mulgedium — Ur. 833, 1036.
 Musa — Hy. 353.
 Musaceæ — Py. 2351.
 Musca — P. 1732.
 Mutisia — Ur. 1023. — Py. 2907.
 Myosotis — Ur. 1292.
 Myrcogenia — Py. 3067.
 Myrsine — Py. 1803, 2901.
 Myrrhinium — Py. 3063.
 Myrtaceæ — Hy. 607. — Py. 2996,
 3019.
 Mytilaspis — Py. 2726.
 Nastanthus — Ur. 1064. — P. 1760.
 Negundo — Py. 2016.
 Nicotiana — Ur. 1492. — P. 1769.
 Noctua — Py. 2335.
 Nolina — Ust. 1670.
 Nummularia — Py. 1800.
 Nyssa — Py. 2359.
 Ochrolechia. — Py. 2526.
 Ocotea — Py. 2892, 2953.
 Odogonium — P. 1739, 1752.
 Oenante — Ust. 1638.
 Enothera — Ur. 1244. — Py. 2595.
 Olea — Hy. 609. — Py. 1391, 3031,
 3151.
 Olyra — Ur. 1573. — Py. 1830.
 Omphalaria — Py. 2229.
 Oncidium — Ur. 1553, 1554.
 Onoclea — Ur. 921.
 Onopordum — Ur. 986, 987, 1001, 2594.
 Opegrapha — Py. 2001.
 Opercularia — Ur. 1073.
 Ophelia — Ur. 1505.
 Ophioceras — Py. 2316.
 Ophiopogon — Ur. 1553.

- Opulastrum* — Py. 2385.
Opuntia — Py. 1836, 2710, 3108.
Orchideæ — Py. 2749.
Orchis — P. 1715.
Origanum — Ur. 1108, 1109. — Py. 2395.
Orthoclada — Py. 2850.
Orthosiphon — Ur. 1117.
Oryza — P. 1680, 1700, 1710, 1711, 1712.
Oryzopsis — Ur. 1267.
Osmodium — Ur. 1397.
Osmunda — Ur. 924.
Ossa — Py. 2044.
Ostrya — Hy. 93, 561.
Otiophora — Ur. 1074.
Otopappus — Ur. 971.
Oxalis — Py. 2367.
Oxylobium — Py. 2247.
Oxypetalum — Ur. 846.
Oxyria — Py. 1926.

Pæderia — Ur. 1487.
Pæonia — Py. 2008.
Palicourea — Ur. 1482.
Palmæ — Hy. 162, 245. — Py. 1786, 1844, 2124, 2657, 2763, 3027.
Panax — Ur. 1509.
Pandanus — Py. 2204, 2515, 3053.
Panicularia — Ur. 1266.
Panicum — Ur. 1257, 1265, 1285, 1574, 1575. — Ust. 1606, 1607, 1675. — Py. 1855, 2180, 2417, 2922.
Papaver — P. 1766. — Py. 2473.
Papilionaceæ — Py. 1950, 1951, 2597.
Parietaria — Hy. 718.
Parkia — Py. 2949.
Parlatoria — Py. 2726, 2803.
Parmelia — Py. 2199, 2425, 2549.
Parnassia — Ur. 902, 1191. — Py. 2148.
Parrya — Ur. 1290.
Paspalum — Ur. 1567. — Ust. 1620, 1655. — Py. 2983, 2984.
Passiflora — Ur. 1427, 1428. — Py. 3045.
Patagonium — Ga. 753.
Patrinia — Ur. 1371.
Paullinia — Py. 1863.

Paulownia — Hy. 573.
Pavonia — Ur. 837, 1187. — Py. 2768, 2839.
Peckoltia — Ur. 1499.
Pectronia — Ur. 1373, 1374, 1375, 1488.
Pedicularis — Ur. 1091. — Py. 2162, 2721.
Pelargonium — Py. 2487.
Peltigera — Py. 2524.
Pennisetum — Ur. 1305, 1306. — Ust. 1621.
Pentania — Ur. 1075.
Pentastemon — Py. 2160, 3129.
Peplis — Ust. 1633.
Periclymenum — Hy. 703.
Pericopsis — Py. 2133.
Persea — Py. 1860.
Persica — Hy. 54. — Ur. 1537 *dis.* — Py. 2008.
Persoonia — Py. 2151.
Pertusaria — Py. 2332.
Petasites — Py. 2339.
Petræa — Py. 2393.
Petroselinum — Ur. 1143.
Peucedanum — Ur. 1161, 1410.
Phacelia — Ur. 1125.
Phalaris — Ust. 1665. — Py. 2420, 2421, 2699.
Phaseolus — Py. 1952.
Phellopterus — Ur. 1165.
Phillyrea — Ur. 920.
Philodendron — Py. 3122.
Phlox — Ur. 1126.
Phragmites — Ur. 1286. — Py. 1935, 2419.
Phryganea — Py. 2326.
Phyllanthus — Py. 2397.
Phyllodon — Py. 1831.
Physcia — Py. 2326.
Phytolacca — Py. 2436.
Picea — Hy. 723, 725. — Py. 2440.
Pienomum — Ur. 933.
Pieris — Ur. 1033.
Picrosia — Ur. 1015.
Pierardia — Py. 2323.
Pieris — Hy. 661.
Pimpinella — Ur. 1152.

- Pinaropappus — Ur. 1002.
 Pinus — Hy. 342 *bis*, 367, 432 *bis*, 440, 453 *bis*, 477, 492, 492 *bis*, *ter*, 496 *ter*, 502, 502 *bis*, 505, 506, 533 *bis*, 543, 550, 564, 568 *bis*, 576, 576 *bis*, 577 *bis*, 578 *bis*, 579, 583, 599 *ter*, 604 *bis*, 614 *bis*, 621, 622, 627, 635, 641, 641 *bis*, *ter*, 657, 734. — Py. 2006, 2281, 2461, 2645, 2766, 2824, 3103, 3140.
 Piper — Py. 1857, 2203, 2767.
 Piptadenia — Py. 2948.
 Piptocarpha — Py. 2342.
 Pirus — Hy. 54, 618, 713. — Ur. 1354. — Py. 1897, 1906, 1921, 2241, 2271, 2272, 2358, 2578, 2646, 2939, 3152.
 Pisum — Ur. 863. — P. 1758, 1759.
 Pithecolobium — Ur. 1525. — Py. 1829.
 Pittosporum — Py. 1961.
 Placodium — Py. 2233, 2323, 2428.
 Plantago — Py. 2157, 2158.
 Platanus — Py. 1836, 1984, 2387, 2998.
 Plectranthus — Ur. 1116.
 Plumeria — Ur. 1501.
 Plumiera — Ur. 1319.
 Poa — Ur. 897, 1262. — Ust. 1644. — Py. 2177, 2520.
 Poinciana — Py. 2764.
 Podospermum — Ur. 1049.
 Polemonium — Py. 2640.
 Polyblastia — Py. 1939, 2197, 2330.
 Polygonatum — Py. 2412, 2620.
 Polygonum — Ur. 1462. — Ust. 1592, 1594, 1595, 1596, 1642, 1644 *ter*, 1652. P. 1772. — Py. 2290.
 Polymnia — Ur. 1474.
 Polypodium — Ur. 915. — Py. 2094.
 Polytrichum — Hy. 317.
 Popowia — Ur. 1451.
 Populus — Hy. 88, 421, 431, 496 *bis*, 507, 535, 554, 563, 568 *bis*, 599 *ter*, 617, 618 *bis*, 627, 639, 641 *bis*, 646. — Ur. 911. — Py. 1776, 2005, 2267, 2283, 2284, 2309, 2339, 2364, 2387, 2539, 2652, 3091, 3130.
 Posoqueria — Py. 3116.
 Potentilla — Ur. 1325, 1326, 1327. — Py. 2438.
 Poterium — Py. 2255.
 Pothos — Py. 3133.
 Prasiola — Py. 1936.
 Premna — Ur. 1125.
 Prenanthes — Ur. 1039, 1040, 1041, 1042. — Py. 1930.
 Primula — Ur. 1140.
 Pritchardia — Hy. 71.
 Prosopis — Py. 2307.
 Prunus — Hy. 551, 595, 650, 667. — Ur. 1538, 1536 *bis*. — P. 1706, 1708. — Py. 1892, 1893, 1928, 1991, 2216, 2262, 2337, 2449, 2563, 2582, 2587, 2664, 2717.
 Pseudarthria — Ur. 867 *bis*.
 Pseudotsuga — Ur. 1350.
 Psidium — Hy. 447. — Py. 2814.
 Psilocarya — Ust. 1632 *bis*.
 Psophocarpus — Ur. 866.
 Psora — Py. 1938.
 Psychotria — Hy. 303. — Ur. 841, 1879, 1880, 1489. — Py. 1852, 3027.
 Pteris — Ga. 313, 2633. — Py. 2924, 2965, 3098, 3134.
 Pterolobium — Py. 2945.
 Pueraria — Py. 1923.
 Pulmonaria — Ur. 1279.
 Pulsatilla — Ur. 1209.
 Punica — Hy. 85.
 Pyrenopsis — Py. 2585.
 Pyrrhopappus — Ur. 1003.
 Quercus — Hy. 47 *bis*, 54, 153, 248, 306, 344, 355, 415 *bis*, 432 *bis*, 445, 451, 557, 571, 571 *bis*, 591, 599 *ter*, 600, 608, 621 *bis*, 623, 636, 641 *bis*, *ter*, 650, 673 *bis*, 707, 713, 735 *bis*. — Py. 1775, 1793, 1915, 1932, 1386, 1939, 2008, 2025, 2115, 2134, 2171, 2222, 2223, 2224, 2263, 2341, 2363, 2442, 2535, 2547, 2669, 2708, 2713, 2831, 2834, 2935, 2940, 2957, 2986, 2987, 3055, 3083, 3100, 3159.
 Ranunculus — Ur. 1457. — Ust. 1641.

- Rhagadiolus — Ur. 1043.
 Rhamnus — Hy. 658. — Ur. 1289. —
 Py. 1907, 2309, 2382, 2444, 2680.
 Rhanterium — Py. 2605.
 Rhaponticum — Ur. 974.
 Rhexoblephara — Py. 2191.
 Rhinanthus — Py. 2488.
 Rhizocarpum — Py. 2192, 2381, 2373,
 2528.
 Rhododendrum — Hy. 81, 659, 660. —
 Py. 2264, 2288, 2536, 2609.
 Rhus — Py. 1893, 2258, 2286, 2304,
 2654, 2659, 2983, 3159.
 Rhynchospora — Ust. 1628, 1629,
 1632 *bis*.
 Rhyssostelma — Ur. 1136.
 Ribes — Ur. 1183, 1240, 1441. — Py.
 2250, 2273, 2560, 2565, 2589, 2590.
 Richeria — Hy. 703. — Py. 2335.
 Riddellia — Ur. 1311.
 Rinodina — Py. 2804.
 Robinia — Hy. 444. — Py. 2908.
 Rollinia — Py. 3015, 3101.
 Romulea — Py. 2174.
 Rosa — Ur. 1585. — Py. 1893, 1907,
 1925. — Py. 2541, 3146 *bis*.
 Rotifera — P. 1735.
 Rottboellia — Ur. 901, 1807, 1579.
 Rubia — Ur. 1076, 1077, 1081.
 Rubiaceæ — Py. 3021.
 Rubus — Ur. 875, 876, 1318 *bis*, 1321,
 1322, 1323, 1324, 1536, 1537. — Py.
 1858, 1954, 1955, 2144, 2207, 2208,
 2209, 2217, 2308, 2387, 2673, 2719,
 2978, 3146 *bis*.
 Ruellia — Ur. 1084, 1085, 1381, 1332.
 Rumex — Ur. 883, 884, 1218. — Ust.
 1593. — P. 1749. — Py. 2212.
 Ruta — Py. 2394.
 Sabal — Hy. 466. — Py. 2445, 3093.
 Saccharum — Py. 2370, 2917.
 Salix — Hy. 189 *bis*, 421, 535, 599 *ter*,
 614 *bis*, 624 *ter*, 683, 673 *bis*, 712,
 727. — Ur. 907, 908, 909, 910, 912.
 — Py. 1883, 1991, 2019, 2056, 2163,
 2169, 2240, 2296, 2310, 2364, 2406,
 2443, 2615, 2643, 2705, 2742, 3090.
 Salvadora — Ur. 1405.
 Salsola — Py. 2349.
 Salvia — Ur. 1099, 1100, 1101, 1102,
 1103, 1104, 1105, 1106, 1107, 1890.
 — Py. 2396, 2498.
 Sambucus — Ga. 750 *bis*. — Py. 2220,
 2361, 2402, 2607, 2608, 2681, 2682
 2722, 3082.
 Sanguisorba — Py. 1795.
 Sanicula — Ur. 1141.
 Sapindaceæ — Hy. 604. — Ur. 1185,
 1424. — Py. 1868, 2966, 3111.
 Saprolegnia — P. 1736.
 Sarmienta — Py. 3051.
 Sarothamnus — Py. 2019 *bis*, 2492,
 2570, 2598, 2673, 3079.
 Satyrium — Ur. 1222.
 Saururaceæ — Py. 2952.
 Saururus — Ur. 882.
 Saussurea — Ur. 834.
 Saxifraga — Ur. 904, 1190, 1192, 1193.
 — P. 1771, 1981.
 Scabiosa — Py. 2155.
 Schizolobium — Py. 2880, 2881.
 Schoenoprasum — Ur. 912.
 Scilla — Ur. 880. — P. 1745.
 Scirpus — Hy. 627 *bis*. — Py. 2415,
 2418, 2913.
 Scitamineæ — Hy. 553.
 Scleria — Py. 2960.
 Sclerolobium — Py. 3114.
 Schoberia — Ur. 379.
 Scholochloa — Ust. 1623.
 Scolymus — Ur. 932. — Ust. 1587.
 Scorzonera — Ur. 1050, 1051.
 Scrophularia — Py. 2495.
 Secale — Ur. 1273, 1277. — Py. 1943,
 2747.
 Securidaca — Py. 2876.
 Selaginella — Py. 2632.
 Selinum — Ur. 1147.
 Sempervivum — Py. 2669.
 Senecio — Ur. 930, 945, 946, 947, 948,
 1358, 1359, 1360. — Py. 2500, 2606,
 2743.

- Sequoja* — Hy. 61. — Py. 8145.
Serjania — Py. 1947, 2944.
Serratula — Ur. 988, 989.
Sesamum — Py. 2386.
Seseli — Ur. 1149.
Setaria — Ur. 1580. — P. 1763. — Py. 2942, 2964.
Sibbaldia — Py. 2704.
Sideritis — Ur. 1889.
Sideroxylon — Py. 2908.
Sieversia — Ur. 1189.
Silene — Ust. 1688. — Py. 2152, 2453, 2475.
Siler — Ur. 1150.
Silphium — Py. 2390.
Simaba — Py. 2900.
Simaruba — Hy. 432, 624.
Sisyrinchium — Py. 2622.
Sium — Ur. 850.
Sloanea — Py. 2338.
Smilax — Hy. 676. — Ur. 1235, 1236, 1237, 1560. — Py. 1992, 2172.
Solanaceæ — Py. 1831.
Solanum — Ur. 1095, 1096, 1097, 1387. — P. 1760. — Py. 1783, 1792, 1820, 2538, 2686, 3053.
Solidago — Ur. 838, 839, 944, 1249, 1356. — Ust. 1658 *bis*.
Solorina — Py. 2189, 2426, 2522, 2523.
Sonchus — Ur. 1047, 1048.
Sophora — Ur. 873, 874, 1437.
Sorbus — Py. 2480, 2676.
Sorghum — Ur. 1581. — Ust. 1624. — Py. 2631.
Sparassis — Ur. 892.
Sparganophorus — Ur. 1562.
Spartina — Ur. 1287, 1288. — Py. 2916.
Spartium — Py. 2369.
Spelta — Ur. 1273.
Sphæroma — P. 1740.
Sphagnum — Hy. 83, 224, 226, 242.
Sphyridium — Py. 2525, 2529.
Spiræa — Py. 1795, 1922, 2274, 2734, 3157.
Spirogyra — P. 1739.
Sporobolus — Ur. 1261, 1408. — Py. 2919.
Stachys — Ur. 1112.
Staphylea — Py. 2674.
Stellaria — Py. 2302.
Stemonites — Py. 2802.
Stenorrhynchus — Ur. 886.
Stephanomeria — Ur. 1052.
Sterculia — Hy. 439. — Py. 2779.
Sterculiaceæ — Ur. 1422. — Py. 2840.
Stereum — Hy. 560. — Py. 2795, 2795, 2800.
Sterocaulon — Py. 2320.
Sticta — Py. 2183.
Stipa — Ur. 1274, 1278. — Ust. 1608, 1609, 1651, 1660, 1661, 1673.
Stizolophus — Ur. 1012.
Stobæa — Ur. 1004.
Stratiotes — Py. 2513.
Struthanthus — Py. 1835.
Stylocaulon — Py. 2446, 2447.
Styrax — Hy. 503. — Py. 2248, 2992.
Suæda — Ur. 879.
Succisa — Py. 2501.
Swartia — Ur. 1344. — Py. 2883.
Sweetia — Py. 3005.
Swertia — Ur. 1505.
Symbolanthus — Ur. 1504.
Symphoricarpus — Py. 2561, 2647.
Symphytum — Ur. 1279. — Py. 2490, 2575, 2688.
Synaphæa — Py. 1809.
Syringa — Py. 1884, 2387, 2492.
Tabernæmontana — Ur. 1500. — Py. 3011.
Tamarindus — Hy. 247. — Py. 2142.
Tamarix — Hy. 422. — Py. 2287.
Tanacetum — Ur. 952.
Tapesia — Py. 2182.
Taraxacum — Ur. 1045.
Tarrietia — Py. 1908.
Tassadia — Ur. 1131.
Taxodium — Hy. 523.
Taxus — Hy. 581.
Tecoma — Ur. 1086.
Tephrosia — Ur. 1349, 1524.
Terminalia — Hy. 490.
Tetranthera — Ur. 1444.

- Teucrium — Ur. 1120. — Py. 2294, 2497, 2687.
 Thalictrum — Ur. 1203, 1461. — Py. 2135, 2551.
 Thalloidima — Py. 2196.
 Thamnotia — Py. 2195.
 Thapsia — Ur. 1411 bis.
 Thea — Hy. 509. — Py. 2211, 2593.
 Theobroma — P. 1737. — Py. 2731, 2740, 2745, 2812, 2832.
 Thesium — Ur. 1547.
 Thlaspi — Ur. 1442.
 Thrinia — Ur. 1054.
 Thuja — Hy. 173. — Py. 2337, 2381, 2430, 2533, 3127, 3144.
 Thymus — Ur. 1109. — Py. 2439.
 Tilia — Hy. 563 bis, 614 bis, 641 bis, 656. — Py. 2360, 2363, 2387, 2454, 2492, 2591, 2592.
 Tillandsia — Ust. 1597.
 Tinnea — Ur. 1391.
 Tofieldia — Py. 1934, 3156.
 Torulinus — Ur. 1566.
 Tournefortia — Ur. 845. — Py. 2065.
 Tozzia — Ust. 1640.
 Trachycarpus — Ust. 1676.
 Tragia — Ur. 1419.
 Trametes — Hy. 652.
 Trautvetteria — Ur. 1204.
 Tremandra — Ur. 1180.
 Tricalybia — Py. 3021.
 Trichoma — Py. 3024.
 Trichosanthes — Hy. 709.
 Tricuspid — Ust. 1604. — Py. 2973.
 Trifolium — Py. 2479.
 Triglochin — Py. 2512.
 Trigonella — Ur. 861.
 Triodia — Ust. 1604.
 Triplasis — Ust. 1591.
 Triplium — P. 1707, 1750.
 Trisetum — Ur. 1260. — Py. 2181.
 Triticum — Ur. 1253, 1259, 1273, 1282. — P. 1699, 1713, 1714. — Py. 2825.
 Triunfetta — Ur. 1178.
 Trymatococcus — Ur. 1303.
 Tsuga — Hy. 462, 679. — Py. 2999.
 Turnera — Ur. 1420. — Py. 3048.
 Typha — Py. 2314, 2516, 2625, 2697.
 Ulex — Py. 2333.
 Ulmaria — Ur. 1332.
 Ulmus — Hy. 571. 577, 609 bis, 614 bis, 636, 638, 640, 715. — Py. 1899, 2070 bis, 2167, 2292, 2363, 2432.
 Umbelliferae — Ur. 1170. — Py. 2003, 2483, 2723, 2979.
 Umbilicaria — Py. 2527.
 Urostigma — Py. 2911.
 Urtica — Ur. 1121. — Py. 2409, 2755.
 Utricularia — Ust. 1635.
 Uvaria — Py. 2991.
 Vaccinium — Py. 1979, 2263.
 Valeriana — Ur. 1068.
 Valsa — Py. 2724.
 Vanilla — Ur. 887. — Py. 1969, 2735, 2751, 2752.
 Vaucheria — P. 1738.
 Velaea — Ur. 1166, 1194.
 Veratrum — Py. 2510.
 Verbena — Py. 1777.
 Verbesina — Ur. 940, 941, 942, 943, 1316, 1317, 1470.
 Vernonia — Ur. 931, 1315, 1370. — Py. 2906, 3096.
 Veronica — Ur. 1092. — Py. 1929.
 Verrucaria — Py. 2190, 2198, 2470.
 Viburnum — Py. 2387, 2401, 2603.
 Vicia — Ur. 864, 865, 1431.
 Viguiera — Ur. 936, 937, 938, 939.
 Vincetoxicum — P. 1764.
 Viola — Py. 3042.
 Vitex — Ur. 1497. — Py. 2908.
 Vitis — Hy. 662, 671. — Py. 1905, 1917, 2008, 2146, 2792.
 Vochysia — Py. 2875.
 Vossia — Py. 2918.
 Warscewiczia — Py. 3115.
 Washingtonia — Py. 2410.
 Wedelia — Ur. 337, 1355.
 Wikstroemia — Ur. 905.
 Willemetia — Ur. 1046.
 Willoughbya — Py. 1861.

Wistaria — Py. 1940.
Wulfia — Ur. 886, 1369.
Wyethia — Ur. 1011.

Xanthoria — Py. 1972, 2321.
Xerotes — Py. 3132.
Xylaria — Py. 2782.
Xylomelus — Py. 1962.
Xylopi — Py. 3016.
Xylorrhiza — Ur. 1010.

Yucca — Py. 2173, 2313, 2709, 2973.

Zauschneria — Ur. 1173.
Zea — Py. 2372, 2915.
Zelkova — Py. 1902.
Zephyranthes — Ur. 1468.
Zexmenia — Ur. 835.
Zinnia — Ur. 964.
Zingiberaceæ — Py. 2337.
Ziziphora — Ur. 1118.
Zizyphus — Ur. 1511.
Zoysia — Ur. 1256.
Zygadenus — Ur. 1226.
Zygnema — P. 1739.

INDEX ALPHABETICUS

specierum in volumine XVII descriptarum

additis synonymis (*cursive impressis*)

- abietina (*Russula*) 32.
Abietis (*Calosphaeria*) 561.
Abietis-Caprearum (*Melampsora*) 266 et 462.
Abietis-Chamænerii (*Pucciniastrum*) 469.
abnorme (*Corticium*) 168.
abnorme (*Microthyrium*) 864.
abscondita (*Cryphonectria*) 784.
abscondita (*Nectria*) 784.
abscondita (*Tilletia*) 490.
abyssinica (*Puccinia*) 336.
Acaciæ (*Hypoxylon*) 613.
Acanthi (*Puccinia*) 289.
Acantholimonis (*Pleospora*) 752.
Acanthophora (*Laboulbenia*) 918.
Acanthophylli (*Erysiphe*) 526.
Acanthospermi (*Puccinia*) 294.
Acarnæ (*Puccinia*) 288.
accedens (*Puccinia*) 332.
acerina (*Metasphaeria*) 696.
acerina (*Odontia*) 157.
acerinum (*Stereum*) 174.
acerinus (*Ophiobolus*) 770.
Aceris (*Clypeosphaeria*) 732.
Aceris (*Gnomonia*) 665.
Aceris (*Platystomum*) 890.
Acerum (*Puccinia*) 392.
Achilleæ (*Leptosphaeriopsis*) 731.
Achilleæ (*Pleospora*) 750.
achroa (*Puccinia*) 362.
Acriuli (*Uredo*) 456.
Acroptili (*Puccinia*) 295.
Actææ (*Coleosporium*) 398.
Actææ (*Sphaerella*) 636.
Actææ-Agropyri (*Puccinia*) 464.
Actinellæ (*Puccinia*) 391.
Actinomeridis (*Puccinia*) 262.
acuminata (*Puccinia*) 392.
acuminata (*Xylaria*) 622.
acuta (*Ceriospora*) 707.
acuta (*Ceriosporella*) 707.
acute-conoidea (*Metasphaeria*) 704.
acutum (*Rhaddium*) 512.
acuum (*Gibberella*) 813.
adelura (*Philocopra*) 607.
adelura (*Pleurage*) 607.
Adenocalymmatidis (*Dothidella*) 845.
Adenocalymmatidis (*Microcycus*) 845.
Adenostegiae (*Puccinia*) 322.
Adianti-Capilli-Veneris (*Hyalospora*) 268.
Adianti-Capilli-Veneris (*Uredo*) 268.
adnatifolia (*Lepiota*) 6.
adunca (*Syncephalis*) 509.
adventitius (*Mucor*) 496.
advenula (*Leptosphaeria*) 731.
advenula (*Verrucaria*) 731.
Æcidii-Leucanthemi (*Puccinia*) 369 et 464.
Æcidii-Trientalis (*Puccinia*) 464.
acidoides (*Melampsora*) 462.
Ægopodii (*Puccinia*) 342.
ægra (*Puccinia*) 392.
æmulans (*Xylaria*) 630.
æquatoriensis (*Puccinia*) 335.
æquilinearis (*Eutypella*) 566.
æquilinearis (*Sphaeria*) 566.

- æruginea (*Scolecopeltis*) 874.
 æruginescens (*Russula*) 32.
 Æsculi (*Gnomonia*) 665.
 ætnense (*Tricholoma*) 9.
 affine (*Phragmidium*) 400.
 affinis (*Cintractia*) 480.
 affinis (*Puccinia*) 275.
 africana (*Cunninghamella*) 508.
 Agaves (*Coutinia*) 590.
 Agaves (*Hypocrea*) 802.
 Agaves (*Lembosia*) 901.
 Agaves (*Physalospora*) 585.
 agnita (*Leptosphaeria*) 727.
 Agropyri (*Puccinia*) 461.
 agropyrina (*Puccinia*) 384 et 464.
 agropyrina (*Uredo*) 384.
 Agrostis (*Puccinia*) 464.
 Aikeni (*Æcidium*) 434.
 Ailanthi (*Didymella*) 654.
 Ainsliæ (*Puccinia*) 295.
 Alaskæ (*Amphisphaeria*) 685.
 alaskana (*Guignardia*) 576.
 alaskana (*Læstadia*) 576.
 alaskanum (*Æcidium*) 435.
 alaskensis (*Limaecinia*) 558.
 alba (*Panus*) 50.
 albellus (*Panæolus*) 93.
 Albertii (*Lembosia*) 897.
 albicans (*Tylostoma*) 223.
 albida (*Chrysomyxa*) 396.
 albida (*Cunninghamella*) 508.
 albida (*Lentodiopsis*) 47.
 albida (*Phlebia*) 155.
 albidans (*Pleosphaeria*) 763.
 albidipes (*Boletus*) 98.
 albidula (*Collybia*) 15.
 albidulum (*Hebeloma*) 67.
 albidum (*Edocephalum*) 508.
 albidus (*Boletus*) 101.
 albidus (*Ceratomyces*) 101.
 albidus (*Favolus*) 141.
 albidus (*Hymenogaster*) 239.
 albidus (*Hypomyces*) 804.
 albidus (*Polyporus*) 114.
 albidus (*Polystictus*) 114.
 albi-peridia (*Puccinia*) 370 et 464.
 albipes (*Cantharellus*) 35.
 albo-carneus (*Boletus*) 98.
 albocreata (*Amanitopsis*) 2.
 albo-farinaceus (*Marasmius*) 41.
 albo-griseus (*Fomes*) 116.
 albo-luteus (*Polystictus*) 128.
 albo-magnum (*Hydnum*) 148.
 albo-marginata (*Thelephora*) 160.
 albo-ochraceum (*Corticium*) 169.
 albo-pruinosa (*Diatrype*) 566.
 albo-stramineus (*Hypochnus*) 185.
 albo-virescens (*Omphalia*) 23.
 albo-virescens (*Pleurotus*) 23.
 albulensis (*Puccinia*) 391.
 album (*Hebeloma*) 67.
 Aleæ (*Æcidium*) 433.
 Alfalfæ (*Cladochytrium*) 515.
 Alfalfæ (*Urophlyctis*) 515.
 algericum (*Podaxon*) 219.
 algeriensis (*Cintractia*) 479.
 Alismatis (*Doassansia*) 479.
 Alismatis (*Ophiobolus*) 773.
 Alismatis (*Physalospora*) 585.
 Alismatis (*Pleospora*) 756.
 allantospora (*Calospora*) 717.
 Allii-Fragilis (*Melampsora*) 462.
 Allii-japonici (*Puccinia*) 363.
 Allii-Phalaridis (*Puccinia*) 464.
 Allii-populina (*Melampsora*) 266 et 462.
 Allii-Salicis albæ (*Melampsora*) 266 et 462.
 Allophilii (*Uredo*) 444.
 allogena (*Pharcidia*) 648.
 allogena (*Verrucaria*) 648.
 alnea (*Otthiella*) 652.
 alneum (*Stereum*) 166.
 alneus (*Xerocarpus*) 178.
 alnicola (*Coprinus*) 92.
 alnicola (*Metasphaeria*) 702.
 alpina (*Eutypella*) 566.
 alpina (*Guepinia*) 207.
 alpina (*Hypocopa*) 605.
 alpina (*Melampsora*) 462.
 alpina (*Pyrenophora*) 758.
 alpina (*Rhynchosphaeria*) 740.
 alpina (*Sordaria*) 605.
 alpina (*Trematosphaeria*) 734.
 alpinum (*Platystomum*) 891.
 alpinum (*Triphragmium*) 402.
 Alstroemeriae (*Puccinia*) 366.
 altaica (*Puccinia*) 305.
 alutaceo-umbrinus (*Hypochnus*) 186.
 alutaceum (*Corticium*) 172.
 alveolatus (*Panæolus*) 93.
 Alyssi (*Puccinia*) 354.
 Alyxiæ (*Mæurodothis*) 856.
 amabilis (*Marasmius*) 46.
 amaniana (*Nectria*) 790.
 amaniensis (*Peniophora*) 175.

- Amarella (Agaricus)* 13.
amazonense (Æcidium) 430.
amazonensis (Uredo) 447.
amazonica (Cordyceps) 823.
amazonica (Hypocrella) 817.
amazonica (Xylaria) 630.
amazonica (Zukalopsis) 554.
amazonicum (Dimerosporium) 535.
amazonicus (Marasmius) 41.
ambigua (Thelephora) 162.
ambiguuum (Platystomum) 889.
Ameghinoi (Entyloma) 483.
Amelanchieris (Platystomum) 890.
Amelanchieris (Strickeria) 762.
Amelanchieris (Telchospora) 762.
americana (Diatrype) 571.
americana (Puccinia) 464.
americana (Sporormia) 739.
americana (Thelephora) 161.
americana (Uredinopsis) 269.
americanum (Glonium) 896.
americanus (Lentinus) 48.
Amigenatska (Thelephora) 171.
amcense-rosea (Laschia) 144.
Amorphæ (Rosellinia) 598.
ampelina (Cryptovalsa) 567.
amphigena (Puccinia) 464.
Amphilomatia (Arthopyrenia) 695.
Amphilomatia (Cyrtidula) 695.
Amphilomatia (Sphaerulina) 695.
Amphilophii (Puccinia) 392.
ampla (Cyphella) 191.
amplexans (Hexagonia) 138.
Amygdalinæ (Melampsora) 463.
Anacardii (Meliola) 551.
anaxæum (Aulographum) 895.
anceps (Æcidium) 411.
anceps (Coleosporium) 398.
Anchusæ (Æcidium) 381.
Ancylanthi (Æcidium) 414.
Ancylanthi (Uredo) 439.
Andersoni (Phragmidium) 400.
andina (Erysiphe) 526.
andina (Urocystis) 492.
andinum (Secotium) 217.
Andiræ (Dimerosporium) 533.
Andropogonis (Puccinia) 464.
Andropogonis (Ustilago) 487.
Andropogonis-contorti (Ustilago) 487.
Andropogonis-birtifolii (Sphacelotheca) 487.
Andropogonis-hirtifolii (Ustilago) 479 et 487.
Andropogonis-saccharoidis (Ustilago) 479.
Andropogonis-saccharoidis (Ustilago) 487.
Androsaces (Ustilago) 472.
Androsæmi (Diaporthæ) 667.
Andryalæ (Uredo) 438.
aneirina (Poria) 133.
Anemones (Urocystis) 491.
Angelicæ (Metasphaeria) 696.
Angelicæ (Puccinia) 344.
Angelicæ-Bistortæ (Puccinia) 464.
Angelicæ-mamillata (Puccinia) 464.
angelicicola (Puccinia) 344.
angolensis (Microcyclus) 844.
angustata (Puccinia) 464.
angustatum (Hysterium) 907.
Anisacanthi (Puccinia) 320.
anisatus (Lentinus) 50.
anisomera (Diaporthæ) 671.
annosus (Fomes) 120.
Anodæ (Puccinia) 352.
anodonta (Æcidium) 427.
Anogræ (Æcidium) 423.
anomala (Meliola) 552.
anomala (Pleurage) 603.
anomala (Puccinia) 377.
anomala (Solenia) 146.
anomala (Sordaria) 603.
anomalum (Platystomum) 890.
anomalus (Rhachomyces) 917.
Anonæ (Capnodium) 555.
anonicola (Asterina) 877.
ansata (Puccinia) 319.
antaretica (Phyllactinia) 524.
Antenoreus (Ophiobolus) 771.
Anthemidis (Puccinia) 279.
Anthephoræ (Uredo) 456.
Anthistirie (Sphaerella) 645.
Anthocleistæ (Schizospora) 396.
Antholyzæ (Uromyces) 260.
Anthospermi (Puccinia) 316.
Anthyllidis (Uromyces) 263.
Antillarum (Clavaria) 197.
Antillarum (Lophiosphæra) 886.
Antillarum (Tremellopsis) 193.
apapophysata (Ceratosphaeria) 715.
aphanes (Polystomella) 865.
aphanicondra (Puccinia) 336.
Aphelandræ (Æcidium) 416.
Aphyllanthi (Pleospora) 754.
apiculata (Delitschia) 687.
apiculata (Didymella) 653.
apiculata (Ustilago) 491.

- apiculatus (Rhizopus) 502.
 Apil (Puccinia) 339.
 Aplopappi (Puccinia) 295.
 apogyra (Anthostomella) 595.
 apogyra (Melanothea) 595.
 aporea (Psora) 797.
 appendiculatoides (Puccinia) 321.
 appianata (Amphisphaeria) 635.
 appianata (Stigmatula) 578.
 applanatus (Coriolus) 129.
 applanatus (Polystictus) 129.
 atro-inquinans (Physalospora) 580.
 apula (Sphaerella) 636.
 aquilana (Leptosphaeria) 724.
 aquilana (Massaria) 733.
 Aquilegiae-viridiflorae (Puccinia) 358.
 aquosus (Polyporus) 112.
 arabica (Mycosyrinx) 484.
 arabica (Schræberia) 484.
 Araceae (Metasphaeria) 703.
 arachnoidea (Thelephora) 187.
 arachnoides (Chaetomium) 600.
 arachnoideus (Hypochnus) 187.
 Araliae-cordatae (Puccinia) 345.
 araneosa (Epicymatia) 676.
 araneosa (Phaeosphaerella) 676.
 araneosum (Sphaerellathectum) 676.
 aratoides (Trametes) 186.
 aratus (Fomes) 125.
 Araucariae (Lentinus) 49.
 Araujo-Morreniae (Puccinia) 394.
 Arcangeliana (Mycena) 18.
 arctica (Linospora) 776.
 arctica (Puccinia) 337.
 ardosiacus (Hypochnus) 190.
 Arecae (Hypomyces) 804.
 Arechavaletae (Dothidella) 849.
 Arechavaletae (Omphalia) 22.
 arenaceus (Hypomyces) 804.
 Arenariae (Puccinia) 392.
 arenaria (Didymosphaeria) 680.
 arenaricola (Puccinia) 464.
 arenicola (Battarrea) 225.
 argentata (Puccinia) 464.
 argentinensis (Claudopus) 61.
 argentinensis (Daldinia) 616.
 argentinensis (Gloniopsis) 910.
 argentinensis (Kalmusia) 742.
 argentinensis (Laboulbenia) 923.
 argentinensis (Melampsora) 264.
 argentinensis (Neopekia) 686.
 argentinensis (Plowrightia) 846.
 argentinensis (Sporodinia) 505.
 argentinensis (Xylaria) 627.
 argillaceus (Hypochnus) 189.
 argyropotamicum (Tricholoma) 9.
 Ari (Læstadia) 575.
 arietinus (Herpomycetes) 916.
 Ari-Phalaridis (Puccinia) 465.
 arida (Coniophora) 182.
 arida (Hymenochaete) 167.
 arida (Hymenochaetella) 167.
 Aristidae (Uromyces) 470.
 arizonensis (Pleurage) 601.
 arizonensis (Sordaria) 601.
 arizonica (Cucurbitaria) 764.
 arizonicum (Secotium) 217.
 Arjonae (Euryachora) 841.
 Armeniaceae (Pleospora) 747.
 Arnoldi (Leptosphaeria) 730.
 aromatica (Puccinia) 338.
 aromaticum (Platystomum) 889.
 Arrhenatheri (Puccinia) 383 et 465.
 artemisiella (Puccinia) 279.
 artemisiicola (Puccinia) 279.
 Arthraconis (Phyllachora) 840.
 Arthuri (Puccinia) 390.
 Artini (Battarreopsis) 223.
 Arundinellae (Sorosporium) 484.
 Aschersoniana (Pholiota) 63.
 Aschi (Mycena) 20.
 Asclepiadeae (Hysterostomella) 892.
 asclepiadeum (Cronartium) 461.
 asclerotica (Balansia) 821.
 asiatica (Puccinia) 392.
 Asparagi-lucidi (Puccinia) 365.
 aspera (Puccinia) 353.
 asperata (Tubaria) 76.
 Asperifolii (Ecidium) 382.
 asperula (Xylaria) 628.
 Asperulae-cynanchiae (Puccinia) 389.
 Asperulae-odoratae (Puccinia) 389.
 asperulina (Puccinia) 319.
 asperulinum (Ecidium) 319.
 asperulus (Polyporus) 112.
 Asphodell (Puccinia) 394.
 Aspicillae (Physalospora) 587.
 Aspicillae (Verrucaria) 587.
 Aspidii (Asterella) 884.
 Aspidii (Lophidium) 891.
 Aspidii (Platystomum) 891.
 Aspidiotus (Hyalospora) 268.
 Aspidiotus (Uredo) 268.
 astericola (Leptosphaeria) 725.

- asterinoides (Meliola) 549.
 Asteris-alpini (Puccinia) 279.
 Asteris-Caricis (Puccinia) 465.
 Asterisci (Erysiphe) 527.
 Asteromæ (Uredo) 437.
Asterum (*Æcidium*) 371.
 Astragali (Ophiobolus) 770.
 Astragali (Uromyces) 470.
 Astringiæ (Puccinia) 393.
astrantiicola (Puccinia) 393.
 Astrocaryi (Phyllachora) 837.
 ater (Boletus) 99.
 aterrima (Amphisphæria) 684.
 athamantina (Puccinia) 343.
 Atkinsoniana (Puccinia) 465.
 Atkinsonii (Calonectria) 811.
 Atkinsonii (Lachnocladium) 193.
 Atkinsonii (Uredinopsis) 269.
 Atomariæ (Acompsomyces) 917.
 atra (Plasmopara) 520.
Atractylidis (Puccinia) 285.
Atrages (Puccinia) 356.
 atrata (Laboulbenia) 923.
 atricapilla (Meliola) 553.
atricola (*Microthelia*) 591.
atricola (*Müllerella*) 591.
 atripes (Polystictus) 127.
 Atriplicis (*Æcidium*) 434.
 atriseda (Eriosphæria) 660.
atriseda (*Trichosphæria*) 660.
 atro-album (*Æcidium*) 421.
 atro-crocea (Leptota) 4.
 atro-crustacea (Ravenella) 406.
 atro-fuscus (Uromyces) 261.
 atro-maculans (Ophiodothis) 859.
 atro-maculans (Pleospora) 750.
 atrovirens (Corticium) 173.
 atrum (Lycoperdon) 230.
Atrynea (*Endococcus*) 618.
 Atrynæ (Pharcidia) 618.
 Aucubæ (Asterina) 878.
 auletica (Uredo) 457.
auloderma (Puccinia) 393.
 aurantiaca (Kneiffia) 182.
aurantiaca (*Poria*) 133.
 aurantiaca (Pterula) 199.
 aurantiaca (Syncephalis) 508.
 aurantiaca (Uredo) 452.
 aurantiacum (Gymnosporangium) 271.
 Aurantii (Limacinia) 556.
 aurantiicola (Peroneutypella) 570.
 aurasiacus (Cortinarius) 77.
 aurata (Puccinia) 312.
 aurea (Bresadoella) 797.
 aureliana (Lasiosphæria) 714.
 aureo-brunnea (Micropeltis) 870.
 aureo-viridis (Flammula) 70.
 aureum (Sphæroderma) 781.
 aureus (Merulius) 145.
aureus (*Merulius*) 145.
 auriscalpioides (Fomes) 124.
 australiensis (Kretzschmaria) 615.
 australiensis (Megaloectria) 815.
 australis (Eutypella) 564.
 australis (Leptosphærulina) 746.
 australis (Puccinia) 465.
 austriaca (Calospora) 717.
 austriaca (Kordyanella) 159.
austro-americana (*Ustilago*) 484.
 austro-americanum (Melanopsichium) 484.
 autumnalis (Meliola) 549.
 avellanea (Kneiffia) 178.
 axicola-minor (Cintractia) 480.
axicola-spinularum (*Cintractia*) 479.
 Baccarinii (Builiardella) 902.
 baccharidicola (Parodiella) 541.
baccharidicolum (*Æcidium*) 436.
 baccharidicolum (Dimerium) 537.
 Baccharidis-hirtellæ (Puccinia) 273.
 Baccharidis-multifloræ (Puccinia) 273.
 baccharidophilum (*Æcidium*) 436.
 bactridicola (Saccardomyces) 530.
 bactridicolum (Dimerium) 541.
 Bactridis (Phragmographum) 906.
 bactrosporus (Ophiobolus) 773.
 badia (Collybia) 16.
bidia (*Collybia*) 17.
 badio-umbrina (Ulocolla) 207.
 badius (Leucogaster) 240.
 baicalensis (Annularia) 53.
 Bakeri (Boletus) 99.
 Bakeri (Hebeloma) 66.
 Bakeri (Hysterographium) 912.
 Bakeri (Rhizophagus) 857.
 Bakeriana (Puccinia) 343.
 balaensis (Uredo) 458.
 Balanæ (Auerswaldia) 841.
 balearica (Feracia) 815.
 ballotæflora (Puccinia) 325.
 balnei-ursi (Melanopsamma) 658.
 balsameum (Hydnum) 152.
 Balsamorhizæ (Pleospora) 750.

- Bambusæ (Kusanobotrys) 881.
 Bambusæ (Lophiella) 886.
 bambusicola (Polyporus) 111.
 banisteriicola (Uredo) 437.
 Banksiæ (Seynesia) 887.
 barbata (Xylaria) 626.
 Barbieri (Massarinula) 658.
 Barbosæ (Eutypa) 569.
 Bardanæ (Puccinia) 288.
 Barkhausiæ-rhœadifoliæ (Puccinia) 310.
 Barnadesiæ (Dimerium) 537.
 Barroetæ (Puccinia) 300.
 Bartholomæi (Puccinia) 465.
 Bartlettii (Magnusia) 531.
 Bartolomewii (Puccinia) 465.
 Basalduai (Leptosphaeria) 724.
 Basanacanthæ (Æcidium) 436.
 Basellæ (Uromyces) 256.
 Batatæ (Puccinia) 333.
 Batesiana (Puccinia) 284.
 Bauhiniæ (Scolecopeltis) 874.
 Bauhiniæ (Uredo) 447.
 Bauhiniarum (Parodiella) 541.
 bauhiniolum (Dimerosporium) 536.
 Baumiana (Ravenelia) 405.
 Baumianum (Æcidium) 414.
 Baumii (Clathrus) 213.
 Baumii (Phyllachora) 835.
 Behnckiana (Nectria) 789.
 Belluciæ (Asterina) 875.
 bellula (Peroneutypa) 569.
 Belyneckii (Metasphaeria) 703.
 belonospora (Ophionectria) 816.
 Benedicti (Puccinia) 290.
 Berberidis (Cucurbitaria) 764.
 Berberidis (Ophiobolus) 770.
 Berberidis-ruscifoliæ (Æcidium) 432.
 Berberidis-trifoliæ (Puccinia) 356.
 Berengeriana (Didymella) 657.
 Berengeriana (Pharcidia) 657.
 Berengerianus (Endococcus) 657.
 Berlesiana (Jattæa) 562.
 Berlesianus (Rhachomyces) 918.
 Bernieri (Polyporus) 110.
 Bernieri (Xanthochrous) 110.
 berolinensis (Diaporthe) 670.
 berolinensis (Ruhlandiella) 242.
 bertiioides (Xylaria) 625.
 Berulæ (Æcidium) 422.
 Berulæ-Scirpi (Uromyces) 470.
 Beschiana (Puccinia) 368.
 Betæ (Microsphaera) 525.
 betiphilum (Entyloma) 483.
 Betula (Boletus) 98.
 betulina (Dothidella) 850.
 betulinum (Melampsoridium) 464.
 Biasolettianum (Chrysogluen) 803.
 Biasolettianus (Hypomyces) 803.
 Bicchiana (Dothidella) 845.
 Bicchianus (Microcycus) 845.
 bicalcarata (Ceriosporella) 707.
 bicolor (Clavaria) 195.
 bicolor (Clavaria) 196.
 bicolor (Leptonia) 53.
 bicolor (Odontia) 188.
 Bidentis (Ophiobolus) 771.
 biformis (Marasmius) 41.
 biformis (Polyporus) 138.
 biformis (Polystictus) 138.
 bifrons (Physalospora) 584.
 Bigeloviæ (Rosellinia) 598.
 Bigeloviæ (Sorosporium) 438.
 Bignoniæ (Sphaerella) 641.
 biguttulata (Rosellinia) 598.
 biparasitica (Charonectria) 783.
 bipindiensis (Clitocybe) 12.
 bipindiensis (Favolus) 142.
 bipindiensis (Hygrophorus) 29.
 bipindiensis (Inocybe) 66.
 bipindiensis (Mycena) 19.
 bipindiensis (Pleurotus) 25.
 bipindiensis (Typhula) 201.
 Biscutellæ (Æcidium) 430.
 biseptata (Metasphaeria) 704.
 biseptatum (Gymnosporangium) 461.
 bisontinum (Tricholoma) 10.
 Bistortæ (Puccinia) 465.
 Bistortarum (Ustilago) 473.
 bithynica (Puccinia) 325.
 blechnicola (Uredo) 458.
 Blechnii (Melampsorella) 266.
 Bledii (Laboulbenia) 918.
 Blepharidis (Puccinia) 320.
 Blumenaviæ (Calonectria) 810.
 blumenavica (Eriosphaeria) 660.
 blumenavica (Xylaria) 623.
 blumenaviensis (Nectria) 786.
 Boehmeriæ (Uredo) 401.
 Boehmeriæ (Pucciniastrum) 401.
 boganiensis (Dædalea) 139.
 bohemica (Urophlyctis) 515.
 bolaris (Hypochnus) 184.
 Bolbophylli (Nectria) 790.
 boletinus (Hypomyces) 805.

- Bolleyana (Puccinia) 465.
 Boltoniæ (Æcidium) 412.
 Bolusii (Uromyces) 253.
 bomfimensis (Fomes) 121.
 bomfimensis (Uredo) 447.
 bomolense (Æcidium) 426.
 bomolense (Pemphidium) 865.
 Bonacinae (Xylopodium) 238.
 Bonæ-Spei (Diatrype) 571.
 Bonanniæ (Puccinia) 341.
 Bonanseana (Nectria) 786.
 bonariensis (Dædalea) 139.
 boopidicola (Uredo) 438.
 boreale (Hydnum) 149.
 boreale (Stereophyllum) 191.
 borealis (Anthurus) 214.
 borealis (Gnomonia) 664.
 borealis (Lysurus) 214.
 borealis (Peniophora) 175.
 borealis (Physalospora) 579.
 borealis (Polystictus) 129.
 borealis (Puccinia) 465.
 borealis (Sphacelotheca) 486.
 borneensis (Laboulbenia) 918.
 Bornmülleri (Tilletia) 489.
 Boroniæ (Puccinia) 351.
 Borreriæ (Æcidium) 414.
 Borreriæ (Puccinia) 316.
 Borrichiæ (Æcidium) 412.
 Bossiæ (Æcidium) 428.
 Bouwardiæ (Puccinia) 316.
 Bouwardiæ (Uromyces) 246.
 botryosa (Bertiella) 708.
 botryosa (Nectria) 794.
 botryosum (Corticium) 173.
 bovilla (Sphaeria) 605.
 Brachylænae (Cycloschizon) 896.
 Brachylænae (Schnecopia) 896.
 Brachypodii (Didymosphaeria) 680.
 brachypus (Puccinia) 383.
 brachysora (Puccinia) 383.
 brachyspora (Didymosphaeria) 679.
 brachysporus (Corallomyces) 807.
 brachystomus (Ophiobolus) 771.
 Brändlei (Flammula) 68.
 brasiliense (Capnodium) 558.
 brasiliense (Hypoxyton) 611.
 brasiliense (Sclerangium) 237.
 brasiliensis (Drepanoconia) 519.
 brassicicola (Odontia) 156.
 brassicicola (Rosellinia) 600.
 Braunii (Thelephora) 161.
 Bresadolæ (Anixia) 530.
 Bresadolæ (Collybia) 17.
 Brasadolæ (Hypochnus) 185.
 Bresadolæ (Hypomyces) 808.
 Bresadoleana (Myriogenospora) 859.
 breviculmis (Uredo) 455.
 Brevierei (Cladochytrium) 514.
 brevipes (Podocrea) 799.
 brevipes (Tubaria) 76.
 brevipes (Xylaria) 624.
 brevis (Lembosia) 897.
 Briardiana (Pleospora) 750.
 Brinkmanni (Odontia) 157.
 Brlosiana (Læstadia) 573.
 bromina (Puccinia) 382, 455.
 bromina (Uredo) 382.
 Brongniartæ (Pleoravenelia) 407.
 Broomei (Polypcrus) 131.
 Brumellarum-Molinæ (Puccinia) 465.
 Brunkii (Tolyposporella) 491.
 Brunkii (Ustilago) 491.
 brunnescens (Lepiota) 6.
 bryophila (Galera) 75.
 bryophilus (Cantharellus) 36.
 Buchloës (Puccinia) 394.
 buddleyicola (Meliola) 546.
 bulbicola (Nectria) 794.
 bulbipes (Pluteus) 55.
 Bulbocastani (Puccinia) 393.
 bulbosum (Hebeloma) 67.
 bulbosum (Tricholoma) 11.
 bullata (Puccinia) 393.
 Buntii (Puccinia) 393.
 Bupleuri (Physalospora) 580.
 Bupleuri (Puccinia) 393.
 Bupleuri (Uredo) 393.
 Bupleuri-falcati (Puccinia) 393.
 Bornettii (Puccinia) 382.
 Burtianum (Stereum) 163.
 Burtii (Grandinia) 154.
 Burtii (Hebeloma) 66.
 Burtii (Inocybe) 66.
 Busseanum (Æcidium) 414.
 Buxi (Diaporthe) 669.
 buxicola (Didymella) 654.
 Byrsonimæ (Lembosia) 898.
 byrsonimicola (Asterina) 875.
 byssiseda (Clavaria) 194.
 byssiseda (Nectria) 795.
 byssisedoides (Claudopus) 61.
 byssoides (Coniophora) 183.
 byssoides (Coniophorella) 183.

- caaguazensis* (*Dothidella*) 855.
caaguazensis (*Phæodothis*) 855.
cabo-friensis (*Uromyces*) 247.
cacao (*Xerocarpus*) 179.
Cacaliæ (*Coleosporium*) 460.
cachoirasensis (*Polyporus*) 115.
Cacti (*Nectriella*) 778.
Caetorum (*Lembosia*) 897.
Caetorum (*Trematosphaeria*) 731.
caematiformis (*Puccinia*) 273.
cærulescens (*Corticium*) 173.
cæruleus (*Hypochnus*) 185.
Cæsalpinia (*Ravenella*) 406.
Cæsalpinia (*Zignoella*) 709.
cæsariata (*Nectria*) 790.
cæsia (*Thelephora*) 187.
cæsium (*Corticium*) 187.
cæsius (*Hypochnus*) 187.
cæsius (*Polyporus*) 114.
cæspitosa (*Baumiella*) 708.
cæspitosa (*Laschia*) 144.
cæspitosa (*Leptosphaeria*) 725.
cæspitosa (*Rosellinia*) 597.
cæspitosa (*Sphaerella*) 643.
cæspitosa-filiformis (*Cordyceps*) 822.
cæspitosa-terrestris (*Pleurotus*) 24.
cuspidulosa (*Pistillaria*) 202.
Cajanderi (*Fomes*) 120.
calabrensis (*Collybia*) 15.
Calamagrostis (*Puccinia*) 465.
Calami (*Gibberella*) 818.
Calami (*Rosellinia*) 598.
Calandrinæ (*Ustilago*) 472.
Calathea (*Glonium*) 896.
calathicola (*Ophiobolus*) 771.
calcareæ (*Ustilago*) 476.
calceum (*Corticium*) 174.
Calendulæ (*Puccinia*) 280.
californica (*Flammula*) 68.
californica (*Thecaphora*) 488.
californica (*Xylaria*) 626.
californicum (*Hypholoma*) 83.
californicum (*Sorosporium*) 498.
Calimeridis (*Puccinia*) 301.
Calkinsii (*Fomes*) 119.
Calkinsii (*Pyropolyporus*) 119.
caloceriformis (*Clavaria*) 194.
calospora (*Tulasnella*) 210.
calosporus (*Crinipellis*) 47.
caloceph (*Lepiota*) 3.
calosporus (*Marasmius*) 47.
calva (*Mucronalla*) 158.
Calyceræ (*Puccinia*) 313.
Calyceræ (*Puccinia*) 313.
Calyceræ-Cavanillesii (*Puccinia*) 313.
calycinoides (*Omphalia*) 21.
Cambodja (*Mucor*) 503.
Cambodja (*Rhizopus*) 503.
Camelliæ (*Pleospora*) 748.
camerunensis (*Nectria*) 786.
camerunensis (*Rimbachia*) 38.
camerunensis (*Xylaria*) 633.
Campanulæ (*Coleosporium*) 398.
Campanulæ-macranthæ (*Coleosporium*) 460.
Campanulæ-rapunculoidis (*Coleosporium*) 460.
Campanulæ-rotundifoliæ (*Coleosporium*) 460.
Campanulæ-Trachelii (*Coleosporium*) 460.
campanulata (*Collybia*) 17.
camptosporus (*Ophiobolus*) 769.
campylostyla (*Gnomonia*) 666.
canadensis (*Pseudovalsa*) 741.
canadensis (*Puccinia*) 349.
canariensis (*Puccinia*) 311.
candida (*Merisma*) 203.
candida (*Nidula*) 215.
candidum (*Tremello dendron*) 208.
canescens (*Irpex*) 153.
Cannæ (*Puccinia*) 366.
cantareirense (*Dimerosporium*) 534.
cantareirense (*Hypoxylon*) 611.
cantareirense (*Microthyrium*) 863.
cantareirensis (*Gibberella*) 814.
capensis (*Diatrype*) 571.
caperatus (*Favolus*) 141.
capillata (*Peroneutypella*) 570.
capistraria (*Valsa*) 564.
capitatus (*Uromyces*) 250.
Caproni (*Bovilla*) 605.
Caragane (*Cryphonectria*) 784.
Caragane (*Myrmecella*) 784.
caraganicola (*Uromyces*) 254.
carbonicola (*Poria*) 134.
Cardiandræ (*Acidium*) 429.
Cardiospermi (*Acidium*) 423.
Cardui-pycnocephali (*Puccinia*) 291.
Carduncelli (*Puccinia*) 293.
Cari-Bistortæ (*Puccinia*) 465.
Caricæ (*Corallomyces*) 808.
caricina (*Claviceps*) 820.
caricina (*Cryptoderis*) 768.
cariciphila (*Leptosphaeria*) 729.

- Caricis (Puccinia) 371, 465.
 Caricis (Sorosporium) 484.
 Caricis-Asteris (Puccinia) 371, 405.
 Caricis-Erigerontis (Puccinia) 372.
 Caricis-frigidæ (Puccinia) 465.
 Caricis-himalensis (Puccinia) 465.
 Caricis-montanæ (Puccinia) 372, 465.
 Caricis-Solidaginis (Puccinia) 373.
 Caricis-vulpinæ (Leptosphaeria) 729.
 Carludovicæ (Microthyrium) 864.
 carneola (Kneiffia) 178.
 carneus (Ithyphallus) 212.
 carneus (Ophiobolus) 769.
 carnosæ (Poria) 134.
 carotinum (Æcidium) 422, 470.
 Carphochætes (Æcidium) 412.
 Carpodini (Uredo) 442.
 Carveri (Metasphaeria) 698.
 caryigena (Diaporthe) 672.
 Caryophylacearum (Melampsorella) 461.
 caryophyllea (Auricularia) 161.
 caryophyllea (Thelephora) 161.
 Cascarillæ (Catharinia) 743.
 Cascarillæ (Zignoella) 709.
 Caseariæ (Phyllachora) 835.
 Cassandræ (Chrysomyxa) 397.
 Cassandra (Uredo) 397.
 Cassiæ (Pleosphaerulina) 743.
 Cassiæ-glaucæ (Uredo) 448.
 Cassiæ-stipularis (Uredo) 448.
 Cassupæ (Lembosia) 899.
 Cassythæ (Sphaerella) 638.
 Castagnei (Puccinia) 357.
 Castagnei (Puccinia) 393.
 castanea (Granularia) 216.
 castanea (Nidularia) 216.
 Castanæ (Pucciniastrum) 401.
 Castanæ (Rosellinia) 597.
 castaneus (Hygrophorus) 26.
 castanicola (Clitocybe) 13.
 castanophilus (Polyporus) 111.
 Castilleiæ (Leptosphaeria) 724.
 Castillejæ (Ophiobolus) 772.
 Castillejæ (Pyrenophora) 758.
 Castilloæ (Antennaria) 557.
 Castilloæ (Limacina) 556.
 Casuarinæ (Hexagonia) 198.
 Catalpæ (Diaporthe) 673.
 Catalpæ (Didymosphaeria) 678.
 Catalpæ (Metasphaeria) 700.
 Cathestechi (Tilletia) 490.
 Cathestechi (Ustilago) 490.
 Cattleyæ (Physalospora) 585.
 caulicola (Hypomyces) 805.
 caulicola (Puccinia) 417.
 caulicola (Venturia) 652.
 caulicolum (Æcidium) 417.
 caulicola (Puccinia) 328.
 caulicola (Rhopographus) 721.
 cauliculata (Laboulbenia) 919.
 caulicola (Rhopographus) 857.
 caulium (Metasphaeria) 700.
 cauligena (Herpotrichia) 715.
 cavernosa (Metasphaeria) 702.
 Cecropiæ (Auerswaldia) 843.
 Cedrelæ (Uredo) 450.
 celastrina (Diaporthe) 669.
 Celosiæ (Uromyces) 256.
 celtidicola (Asterina) 876.
 Celtidis (Cucurbitaria) 765.
 Centaureæ (Puccinia) 286.
 Centaureæ-Scabiosæ (Æcidium) 372.
 centralis (Clitocybe) 13.
 centrifuga (Rhizoctonia) 174.
 centrifugum (Corticium) 174.
 Centrolobii (Dothidea) 853.
 centrolobiicola (Phyllachora) 831.
 Centrophylli (Puccinia) 237.
 Cephalanthi (Lophiostoma) 888.
 Cephalanthi (Uredo) 439.
 Cephalanthi-peruviani (Æcidium) 414.
 Cerasi (Teliospora) 760.
 Cerasi (Valsa) 563.
 Cerastii (Leptosphaeria) 719.
 ceratophora (Neorehmia) 537.
 ceratophora (Valsa) 563.
 Ceratoniæ (Hysterium) 907.
 cereicola (Ophiocozia) 775.
 Cercocarpi (Lophiotrema) 887.
 Cercocarpi (Schizostoma) 887.
 Cercocarpi (Strickeria) 762.
 Cercocarpi (Teliospora) 762.
 Cerei (Mycosphaerella) 639.
 Cerei (Sphaerella) 639.
 cerrense (Æcidium) 425.
 cerussatus (Marasmius) 43.
 cervicornis (Clavaria) 194.
 cerviculata (Eutypella) 566.
 cervina (Trametes) 137.
 cervinus (Polystictus) 138.
 Cestri (Puccinia) 323.
 chaetomioides (Sporormia) 738.
 chaetophilus (Hypomyces) 915.
 chaetophorus (Hypochnus) 196.

- chaetostroma (Metasphaeria) 702.
 Chaignoni (Coprinus) 91.
chalybea (Tomentella) 187.
 chalybeus (Hypochnus) 187.
chalybeus (Hypochnus) 178.
 chamælotinus (Boletus) 99.
Chamæmori (Cryptoderis) 717.
 Chamæmori (Gnomonopsis) 717.
 Chamæmori (Rhopoglyphus) 857.
 Camæsarachæ (Puccinia) 324.
 changensis (Boletus) 97.
 changensis (Laschia) 144.
 changensis (Physalacria) 203.
 Changensis (Polystictus) 129.
Changensis (Scrillus) 97.
 changensis (Xerotus) 51.
 chartaceum (Corticium) 178.
 chartarum (Platystomum) 890.
Chasmatis (Puccinia) 392.
 chinicola (Glottella) 903.
 Chionachnes (Phyllachora) 839.
 chlamydosporium (Corticium) 175.
 Chloës (Graphyllum) 913.
 chlorascens (Hydnum) 151.
 chlorinus (Hypochnus) 185.
 chondrillina (Puccinia) 312.
 chondrospora (Aplospora) 658.
chondrospora (Cryptosporella) 658.
 chrysophyllicola (Uredo) 443.
 Chrysopogonis (Sphacelotheca) 486.
 Chrysosplenium (Tilletia) 490.
 chrysospora (Sporormia) 737.
 Chrysothamni (Trematosphaeria) 734.
 chubutensis (Uromyces) 261.
 chusqueicola (Balsania) 820.
 Cichorii (Puccinia) 311.
 Cinchonæ (Calosphæria) 562.
 Cinchonæ (Nectria) 785.
 Cinchonæ (Uredo) 439.
 cincta (Glomerella) 573.
 cincta (Laboulbenia) 923.
cinctus (Polyporus) 131.
 cinerea (Claviceps) 820.
 cinerea (Kneiffia) 182.
 cinerea (Mycena) 19.
 cinerea (Phyllachora) 836.
 cinerea (Trogia) 37.
 cinerellus (Hypochnus) 188.
 cinereo-carneum (Corticium) 172.
 cinereo-flavidus (Marasmius) 45.
 cinereo-violacea (Grandinia) 154.
 cinerescens (Hypochnus) 188.
cinereum (Corticium) 182.
 cingulata (Glomerella) 573.
 cinnabarina (Nectria) 786.
 cinnamomeo-squamulosus (Polyporus) 109.
 circinans (Physalospora) 581.
circinans (Puccinia) 392.
 circularis (Asterina) 880.
 circumscissa (Gnomonia) 666.
 circumscissa (Læstadia) 574.
 circumscissa (Plowrightia) 846.
 Cirsii (Metasphaeria) 699.
 Cirsii (Puccinia) 292.
Cirsii (Thecaphora) 488.
 Cissi (Mycosyrinx) 484.
Cissi (Schræberia) 484.
 Citharexyl (Asteridiella) 886.
 Citri (Crepidotus) 77.
 citrina (Psilocybe) 89.
 citrina (Puccinia) 367.
 citrino-carnescens (Pluteus) 55.
 citrinum (Melanomma) 733.
 cladophila (Didymella) 654.
 clandestinum (Endobasidium) 190.
 clarioneicola (Puccinia) 301.
Clarkiana (Pucciniostele) 264.
 clavariiforme (Gymnosporangium) 461.
clavariiformis (Phyllactinia) 524.
 clavata (Daldinia) 616.
 clavata (Puccinia) 356.
 claviformis (Xylaria) 625.
 clavigera (Kneiffia) 178.
 clavipes (Gymnosporangium) 462.
 clavispora (Trematosphaeria) 734.
 clavulata (Peroneutypella) 570.
claytoniata (Puccinia) 392.
claytoniatum (Æcidium) 392.
 Clematidis (Otthia) 688.
 Clematidis (Pleospora) 749, 752.
 Clematidis (Pyrenophora) 758.
 Clematidis-Agropyri (Puccinia) 465.
 Clementsii (Didymosphaeria) 679.
 clerodendricola (Æcidium) 418.
 clerodendricola (Uredo) 441.
 Clibadii (Æcidium) 412.
 Clidemmiæ (Dimerosporium) 535.
 Clitandree (Uredo) 442.
 clitocybiformis (Marasmius) 44.
 clitocyboides (Lentinus) 48.
 Cnicol-oleracei (Puccinia) 291.
 coccidophora (Nectria) 784.
 coccinea (Cordyceps) 823.

- coccinea* (Xylaria) 623.
coccispora (Leptosphaerulina) 746.
coccisporus (Endococcus) 746.
coccoidea (Seynesia) 868.
Cochleariae (Puccinia) 355.
cochlearis (Agaricus) 50.
cochlearis (Cyphella) 191.
cochlearis (Lentinus) 50.
cochlearis (Panus) 50.
Cocoës (Lembosia) 900.
Cocoës (Leptosphaeria) 727.
Cocoës (Pseudographis) 906.
coccolina (Graphiola) 493.
Coffeæ (Anthostomella) 591.
Coffeæ (Calonectria) 809.
Coffeæ (Microthyrium) 863.
Coffeæ (Mycosphaerella) 640.
Coffeæ (Peniophora) 175.
Coffeæ (Rostrella) 609.
Coffeæ (Sphaerella) 640.
Coffeæ (Vizella) 861.
coffelicola (Limacinia) 577.
coffelicola (Micropeltis) 870.
coffelicola (Nectria) 789.
coffelicola (Pleonectria) 814.
coffelicola (Rosellinia) 598.
coffelicola (Seurattia) 558.
cognata (Daldinia) 616.
cognata (Puccinia) 275.
cohæsa (Puccinia) 359.
coleosporioides (Melampsora) 265.
collapsa (Bertia) 715.
collapsa (Herpotrichia) 715.
collapsa (Phillocopra) 607.
collapsa (Pleospora) 749.
collapsa (Pleurage) 607.
collapsus (Ophiobolus) 772.
coloradensis (Naucoria) 72.
colossum (Hydnum) 148.
Columbaria (Mycosphaerella) 640.
Columbariæ (Sphaerella) 640.
columbina (Laboulbenia) 919.
Comari (Metasphaeria) 697.
comata (Endoxyla) 570.
comata (Pyrenophora) 758.
comatus (Mucor) 497.
combinans (Hydnum) 151.
comma (Glioniella) 903.
comma (Opegrapha) 903.
Commelinæ (Puccinia) 389.
commixta (Nummularia) 618.
communis (Mucor) 498.
commutata (Puccinia) 315.
comosa (Peroneutypella) 570.
comosa (Psalliotia) 84.
comosus (Agaricus) 84.
compacta (Puccinia) 392.
Compositarum (Pleospora) 751.
compressa (Nectria) 785.
compressum (Hysterium) 907.
compressum (Platystomum) 889.
Comptoniæ (Diaporthe) 670.
concinna (Laboulbenia) 919.
concinna (Volvaria) 53.
conductrix (Læstadia) 557.
conductrix (Verrucaria) 577.
confertissima (Didymella) 653.
confertum (Platystomum) 889.
confinis (Physalospora) 583.
confluens (Puccinia) 281.
confusa (Solenia) 146.
confusa (Xylaria) 632.
confusum (Gymnosporangium) 462.
congesta (Diaporthe) 668.
conglobata (Puccinia) 349.
conglobatus (Polyporus) 108.
conglobatus (Polypilus) 108.
congregata (Puccinia) 398.
conica (Lasiosphaeria) 713.
conica (Psathyra) 90.
conidigera (Uncinula) 525.
conigena (Diaporthe) 674.
conigenum (Hydnum) 150.
coniformis (Leptosphaeria) 725.
conioides (Pharcidia) 647.
conioides (Verrucaria) 647.
conjuncta (Puccinia) 332.
connectens (Dendrogaster) 241.
Conocarpi (Acanthostigma) 712.
conocephala (Mycena) 20.
conoidea (Eriosphaeria) 659.
Conopodii-Bistortæ (Puccinia) 465.
conorum (Metasphaeria) 701.
conorum (Peridermium) 409.
Conrathi (Geasteropsis) 229.
consanguinea (Uredo) 452.
consocians (Leptosphaeria) 730.
consocians (Mycoporum) 730.
consociata (Xylaria) 630.
Constantineani (Rhizophidium) 512.
constricta (Puccinia) 391.
contortum (Sorosporium) 485.
Convallariæ (Pleospora) 755.
Convallariæ-Digraphidis (Puccinia) 465.

- conviva (*Hypomyces*) 806.
 conyzella (*Puccinia*) 280.
 Cookeana (*Meliola*) 546.
 Cookei (*Microthelia*) 649.
 Cookei (*Mycosphaerella*) 649.
 Cooperiae (*Puccinia*) 365.
 Copelandi (*Marasmius*) 39.
 Copelandi (*Uredinopsis*) 270.
 Copelandi (*Uredo*) 443.
 copeyensis (*Phyllachora*) 830.
 coprinoides (*Montagnites*) 95.
 coprinophila (*Stropharia*) 86.
 coprophila (*Sordaria*) 605.
 corallina (*Neetria*) 787.
 coralloides (*Ramaria*) 195.
 Corchoropsidis (*Uredinopsis*) 270.
 Cordiae (*Uredo*) 441.
 cordicolum (*Dimerosporium*) 535.
 cordubensis (*Lentinus*) 48.
 Cordyceps (*Podocrea*) 799.
 Corisae (*Coreomyces*) 924.
 Corium (*Bornetina*) 193.
 Corni (*Valsa*) 563.
 corniculata (*Laboulbenia*) 919.
 corniculata (*Metasphaeria*) 705.
 corniculata (*Peroneutypa*) 569.
 corniculatum (*Obrizum*) 706.
 cornu-caprae (*Meliola*) 553.
 cornu-cervi (*Aecidium*) 424.
 cornu-damae (*Podocrea*) 799.
 coronata (*Puccinia*) 465.
 coronata v. *himalensis* (*Puccinia*) 396.
 coronata v. *himalensis* (*Puccinia*) 466.
 coronifera (*Puccinia*) 466.
 corrugans (*Leptosphaeria*) 720.
 corrugata (*Xylaria*) 624.
 corsica (*Puccinia*) 282.
 corticola (*Metasphaeria*) (96, 702).
 corticola (*Poria*) 133.
 cortinata (*Inocybe*) 65.
 Cortusae (*Puccinia*) 336.
 corvarensis (*Puccinia*) 341.
 Coryli (*Metasphaeria*) 702.
 corylina (*Melomastia*) 707.
 corynostoma (*Peroneutypella*) 570.
 costatus (*Boletus*) 97.
 cothurnatus (*Agaricus*) 85.
 Cotini (*Platystomum*) 889.
 Coulterophyti (*Puccinia*) 346.
 Courtoisae (*Uredo*) 456.
 Cousiniae (*Puccinia*) 293.
 Coutoubeae (*Dothidea*) 849.
 Cowellii (*Polyporus*) 104.
 Craspidophori (*Laboulbenia*) 919.
 crassa (*Peniophora*) 176.
 crassicutis (*Puccinia*) 301.
 crassior (*Puccinia*) 362.
 crassipes (*Clavaria*) 195.
 crassivertex (*Uromyces*) 255.
 crassivolvata (*Amanitopsis*) 3.
 crastophila (*Didymosphaeria*) 680.
 Crataegi (*Eutypella*) 564.
 Crataegi (*Venturia*) 651.
 crateriformis (*Hymenochaete*) 166.
 crema (*Calonectria*) 810.
 cremea (*Kneiffia*) 182.
 cremea (*Peniophora*) 182.
 cremeo-tomentosus (*Fomes*) 121.
 cremeum (*Corticium*) 182.
 cremicolor (*Hypochnus*) 185.
 cremoricolor (*Russula*) 31.
 crenatoporus (*Polystictus*) 129.
 Crepidis (*Physoderma*) 513.
 Crepidis-integrae (*Uredo*) 438.
 Crepidis-japonicae (*Uredo*) 438.
 Crepidis-leontodontoidis (*Puccinia*) 304.
 cretacellus (*Agaricus*) 83.
 crispatus (*Merulius*) 146.
 cristata (*Peronospora*) 521.
 cristatum (*Hydnum*) 149.
 Croceae (*Metasphaeria*) 706.
 Croceae (*Xenosphaeria*) 706.
 croceus (*Polyporus*) 109.
 Crombiei (*Endocarpia*) 648.
 Crombiei (*Pharcidia*) 648.
 crotalaricola (*Uredo*) 447.
 crustosus (*Fomes*) 119.
 crustosus (*Pyropolyporus*) 119.
 cryptarum (*Polyporus*) 129.
 cryptosphaerioides (*Didymosphaeria*) 678.
 Cryptoteniae (*Aecidium*) 345.
 Cryptoteniae (*Uredo*) 345.
 cubensis (*Peronospora*) 520.
 cubensis (*Plasmopara*) 520.
 cubensis (*Zignoella*) 712.
 Cuboniana (*Sphaerella*) 638.
 cucullatum (*Hydnum*) 150.
 cucullatus (*Uromyces*) 244.
 Cucumis (*Naucoria*) 72.
 Cucurbitarum (*Choanophora*) 507.
 Cucurbitarum (*Rhopalomyces*) 508.
 culinigena (*Pleocpora*) 756.
 culmorum (*Trichosphaeria*) 589.
 cuneata (*Thecaphora*) 488.

- cuneatum* (*Sorosporium*) 488.
cuneiformis (*Crepidotus*) 77.
Cunninghamianum (*Gymnosporangium*) 462.
Cuphæ (*Puccinia*) 368.
cuprea (*Daldinia*) 617.
cupularis (*Hypocrea*) 800.
cupularis (*Phareidia*) 646.
cupulatum (*Stereum*) 163.
curvatus (*Dictyocephalus*) 238.
curtipes (*Puccinia*) 392.
curtum (*Platystomum*) 883.
curvata (*Gloniopsis*) 909.
curvata (*Laboulbenia*) 919.
curvatum (*Hysterium*) 910.
curvisetum (*Acanthostigma*) 712.
cuspidata (*Mycena*) 19.
cyanea (*Clitocybe*) 14.
cyaneo-tinctum (*Hydnum*) 149.
Cyani (*Puccinia*) 288.
cyanocephala (*Collybia*) 17.
cyanostoma (*Nectria*) 787.
Cyathearum (*Albania*) 881.
Cyathearum (*Asterina*) 881.
Cydoniæ (*Diaporthe*) 668.
cylindrica (*Peroneutypa*) 569.
cylindrica (*Peroneutypella*) 570.
cylindrica (*Ustilago*) 487.
cylindrospora (*Catharinia*) 743.
Cymbalarie (*Didymella*) 654.
Cymboseridis (*Puccinia*) 312.
Cynoctoni (*Puccinia*) 335.
Cynosuroidis (*Uromyces*) 261.
Cyperl (*Cintractia*) 480.
Cyperl (*Meliola*) 553.
cypericola (*Didymosphaeria*) 690.
cypericola (*Glonium*) 896.
cyrnæa (*Puccinia*) 368.
Cytisi (*Æcidium*) 428.
cyttarioides (*Æcidium*) 416.

daerymycelloides (*Nectria*) 789.
Dactylidis (*Uromyces*) 470.
dakotense (*Æcidium*) 434.
dakotensis (*Coprolepa*) 608.
dakotensis (*Hypocypsa*) 608.
dakotensis (*Phloeocypa*) 607.
dakotensis (*Pleurage*) 607.
dakotensis (*Sporormia*) 737.
dalechampicola (*Æcidium*) 424.
Dampieræ (*Puccinia*) 315.
Dannenbergl (*Didymosphaeria*) 683.

Danthoniæ (*Uredo*) 457.
Daphnopsidis (*Dothidea*) 854.
dasycephoides (*Nectria*) 790.
Davidsonii (*Pæcilosporium*) 488.
Davidsonii (*Teichospora*) 760.
Davidsonii (*Tolyposporium*) 488.
dealbans (*Phareidia*) 647.
dealbans (*Sphaerella*) 647.
dealbata (*Bovista*) 234.
dealbata (*Bovistella*) 234.
De Baryana (*Puccinia*) 356.
Debeauxii (*Entyloma*) 514.
Debeauxii (*Physoderma*) 514.
decepiens (*Burrillia*) 479.
decepiens (*Ceratostoma*) 609.
decepiens (*Doassansia*) 479.
Deeringiæ (*Uromyces*) 257.
deflectens (*Corticium*) 174.
deflectens (*Grandinia*) 174.
deflectens (*Platystomum*) 889.
deformans (*Podocrea*) 799.
deformata (*Clitocybe*) 13.
deformatus (*Boletus*) 98.
dehiscens (*Puccinia*) 364.
delicatula (*Poria*) 124.
delicatula (*Xylaria*) 631.
Delillei (*Marasmius*) 45.
Delphinii (*Æcidium*) 433.
Delphinii (*Sphærotheca*) 524.
delphiniicola (*Mycosphaerella*) 635.
delphiniicola (*Sphaerella*) 635.
Demangei (*Bolbitius*) 74.
Demangei (*Pluteolus*) 74.
dendriticum (*Corticium*) 168.
denigrata (*Rosellinia*) 598.
densissima (*Clavaria*) 193.
dentata (*Nidularia*) 216.
dentatus (*Sphaerobolus*) 216.
dentifera (*Laboulbenia*) 919.
denudans (*Myiocopron*) 861.
denudata (*Pleospora*) 748.
denudata (*Strickeria*) 744.
denudata (*Trichosporella*) 744.
depauperans (*Æcidium*) 392.
depauperatus (*Irpex*) 153.
depilata (*Stropharia*) 88.
depressa (*Metasphaeria*) 700.
deremensis (*Russula*) 34.
Derridis (*Hapalophragmium*) 402.
Derridis (*Phyllachora*) 830.
desciscens (*Leptosphaeria*) 726.
deserticola (*Tricholoma*) 10.

deserticola (*Xylaria*) 620.
 desertorum (*Platystomum*) 891.
 Desmanthodii (*Puccinia*) 301.
 Desmodii-leiocarpi (*Uredo*) 446.
 Desmodii-pulchelli (*Uredo*) 446.
 detergibile (*Coleosporium*) 439.
 detergibilis (*Uredo*) 439.
 Deutziae (*Ophiobolus*) 769.
 Deutziae (*Valsa*) 563.
 Deutziae (*Venturia*) 650.
 diabolium (*Hydnum*) 148.
 Diagraphidis (*Puccinia*) 466.
 Diapsidiae (*Sphaerulina*) 693.
 diaphana (*Odontia*) 156.
 diaphanum (*Hydnum*) 156.
 Dichromenae (*Ustilaginoides*) 492.
 Dichromenae (*Ustilago*) 474.
 dichroum (*Hydnum*) 150.
 Dictyolomatis (*Asterina*) 877.
 dictyospora (*Puccinia*) 347.
 Dielsiana (*Puccinia*) 361.
 Dielsii (*Aecidium*) 427.
 Dielsii (*Polyporus*) 108.
 Dieramae (*Puccinia*) 365.
 Dietelianum (*Entyloma*) 483.
 Dieteliana (*Melampsorella*) 267.
 diffusa (*Lembosia*) 899.
 Digitalis (*Sphaerella*) 642.
 digitaricola (*Ustilago*) 475.
 Diguettii (*Calvatia*) 235.
 dilabens (*Asterina*) 879.
 diminuens (*Platystomum*) 889.
 diminuta (*Eutypella*) 565.
 dimorpha (*Puccinia*) 319.
 Diocleae (*Phyllachora*) 831.
 Dioicae (*Puccinia*) 466.
 Dioscoreae-quinquelobae (*Uredo*) 454.
 diospyricola (*Phaeosaccardinula*) 873.
 Diplachnes (*Puccinia*) 383.
 Diplasiae (*Ustilago*) 474.
 Diplopteræ (*Herpomyces*) 916.
 diplospora (*Sphaerellotheca*) 487.
 diplospora (*Ustilago*) 475.
 diplospora (*Ustilago*) 487.
 Diplothemii (*Lembosia*) 901.
 discelloides (*Hypocrea*) 802.
 discipes (*Lepiota*) 4.
 discoidea (*Hypocrea*) 800.
 discoidea (*Pleospora*) 751.
 disconspicua (*Teichospora*) 760.
 discopus (*Marasmius*) 46.
 discospora (*Melanospora*) 782.

Disenochi (*Laboulbenia*) 919.
 dispar (*Acanthostigma*) 713.
 dispersa (*Puccinia*) 381, 466.
 dispersa (*Uredo*) 331.
 dispersa v. *Agropyri* (*Puccinia*) 384.
 dispersa v. *Bromi* (*Puccinia*) 382.
 disputata (*Diaporthe*) 673.
 dissolvens (*Entomophthora*) 511.
 dissospora (*Physalospora*) 583.
 Dissotidis-longicauda (*Uredo*) 450.
 Distegiae (*Oothia*) 688.
 distincta (*Micropeltis*) 870.
 divaricata (*Laboulbenia*) 923.
 divergens (*Kretzschmaria*) 615.
 djurense (*Lycoperdon*) 232.
 dolichopus (*Hydnum*) 148.
 dolichospora (*Leptosphaeria*) 723.
 dolichosporus (*Uromyces*) 247.
 dolichotera (*Leptosphaeria*) 706.
 dolichotera (*Metasphaeria*) 706.
 dolichoterum (*Obrizum*) 706.
 dolioloides (*Leptosphaeria*) 722.
 dolomitica (*Puccinia*) 338.
 Doremæ (*Puccinia*) 346.
 doronicella (*Puccinia*) 283.
 Doronici (*Puccinia*) 283.
 dovrefjeldiensis (*Cantharellus*) 35.
 Dracænæ (*Leptosphaerella*) 727.
 Dracænæ (*Ustilago*) 474.
 dryadea (*Trichosphaeria*) 588.
 dryadicola (*Sphaerella*) 637.
 Dryadis (*Leptosphaeria*) 721.
 Dryadis (*Leptosphaeria*) 721.
 Dryadis (*Microthyrium*) 862.
 Drymidis (*Lembosia*) 898.
 dryophilus (*Coprinus*) 91.
 Dryptæ (*Laboulbenia*) 920.
 dubia (*Laboulbenia*) 920.
 dubia (*Lentomita*) 663.
 dubia (*Peronospora*) 522.
 dubiosum (*Aecidium*) 410.
 dubius (*Mucor*) 494.
 Dulcamaræ (*Ophiobolus*) 771.
 Dulichii (*Puccinia*) 373.
 dumetorum (*Leptosphaeria*) 725.
 Dupainii (*Boletus*) 99.
 duracinus (*Leptoporus*) 115.
 duracinus (*Polyporus*) 115.
 durus (*Cyathus*) 215.
 Dusenii (*Sorica*) 621.
 Dussii (*Crepidotus*) 77.
 Dussii (*Lycogalopsis*) 242.

- Dusli (Xylobotryum) 690.
 Dussianum (Hypoxydon) 611.
 Duvaue (Meliola) 546.
 Dybowski (Geaster) 226.

 Earleanum (Hydnum) 152.
 Earlei (Fomes) 119.
 Earlei (Pyropolyporus) 119.
 Earlei (Russula) 33.
 Earlei (Tilletia) 489.
 Ebui (Kalmusia) 742.
 ehulicola (Lophlostoma) 888.
 eburensis (Ophiobolus) 769.
 echiella (Leptosphaeria) 723.
 echinata (Rosellinia) 597.
 echinocephala (Bomycenella) 21.
 Echinodori (Burrillia) 479.
 Echinopsis (Puccinia) 292.
 Echinopteridis (Puccinia) 351.
 echinospora (Flammula) 69.
 echinosporum (Corticium) 189.
 echinosporus (Xerotus) 52.
 echinulata (Cunninghamella) 508.
 echinulatum (Edocephalum) 508.
 echinus (Meliola) 552.
 ecitodora (Lepiota) 7.
 Ectobia (Herpomyces) 916.
 Edwinia (Pleospora) 754.
 Edwinia (Teichosporella) 744.
 Edwinia (Tichosporium) 744.
 effigurata (Phyllachora) 837.
 effusa (Dothidella) 855.
 effusa (Phaeodothis) 855.
 Eichleriana (Tulasnella) 209.
 Eichlerianum (Corticium) 173.
 Eichlerii (Radulum) 154.
 elaeicola (Marasmius) 41.
 Elasticæ (Phomatosporea) 578.
 Electra (Puccinia) 302.
 elegans (Cladochytrium) 514.
 elegans (Nowakowskiella) 514.
 elegans (Ustilago) 476.
 Eleusines (Phyllachora) 839.
 Elliotti (Xyloceras) 690.
 elliptica (Didymella) 655.
 Ellisiana (Pleurage) 601.
 Ellisiana (Sordaria) 601.
 Ellisii (Coniophora) 183.
 Ellisii (Gymnosporangium) 462.
 Ellisii (Sorosporium) 486.
 Ellisii var. occidentale (Sorosporium) 487.
 Ellisii var. provinciale (Sorosporium) 485.
 elongata (Amanitopsis) 3.
 Elymi (Puccinia) 466.
 Elymi-Impatientis (Puccinia) 466.
 Empetri (Physalospora) 583.
 empetricola (Metasphaeria) 701.
 Encianthi (Ecidium) 421.
 endococcoidea (Sphaerulina) 695.
 endococcoidea (Verrucaria) 695.
 endogena (Nowakowskiella) 514.
 endotephrium (Lycoperdon) 231.
 enecta (Puccinia) 333.
 Engleriana (Dimerosporiopsis) 686.
 Engleriana (Puccinia) 336.
 Englerianum (Dimerium) 537.
 Englerianum (Dimerosporium) 686.
 enormis (Zignoella) 711.
 Enteropogonis (Puccinia) 381.
 Ephedra (Pleospora) 753.
 epicallospisma (Cercidospora) 797.
 epicallospisma (Didymosphaeria) 682.
 epicallospisma (Nectria) 797.
 epicallospisma (Phaeospora) 682.
 epicallospisma (Trichothecium) 682.
 Epicampis (Puccinia) 381.
 epicarphinea (Didymella) 657.
 epicharphinea (Verrucaria) 657.
 epidermidis (Didymosphaeria) 678.
 epidermidis (Cnemonia) 665.
 epidermidis (Metasphaeria) 697.
 Epigæe (Sphaerulina) 693.
 Epilobii (Puccinia) 348.
 Epilobii (Puccinia) 348.
 Epilobii (Pucciniastrum) 470.
 epimyces (Corticium) 186.
 epimyces (Hypochnus) 186.
 epiphylla (Melampsora) 265.
 epiphylla (Pleoravenelia) 407.
 equinus (Rhizopus) 502.
 eradians (Coniophora) 188.
 eradians (Hypochnus) 188.
 eradicatus (Lentinus) 49.
 Eranthidis (Peronospora) 521.
 erigeronatum (Ecidium) 372.
 Erigerontis-Caricis (Puccinia) 466.
 erinaceum (Lycoperdon) 230.
 Eriochloæ (Sorosporium) 485.
 Eriocauli (Cintractia) 476.
 Eriocauli (Tolyposporium) 490.
 Eriocauli (Ustilago) 476.
 Eriogoni (Pyrenophora) 758.
 eriophora (Lepiota) 7.
 Eriophori (Massariella) 683.

- Eriophori* (*Phorcy*) 683.
Eriophori (*Pleospora*) 755.
Eriophori (*Puccinia*) 466.
Eritrichii (*Æcidium*) 418.
erostrata (*Pleurage*) 604.
erostrata (*Sordaria*) 604.
errabunda (*Metasphaeria*) 696.
Eryngii (*Puccinia*) 393.
erysiphinum (*Dimerium*) 537.
erysiphinum (*Dimerasporium*) 537.
erysiphoides (*Micropeltis*) 869.
erythræus (*Uromyces*) 256.
erythrojonipoda (*Hydrocybe*) 80.
erythrojonipus (*Agaricus*) 80.
erythrojonipus (*Cortinarius*) 80.
Escalloniæ (*Physalospora*) 581.
Eschscholzii (*Daldinia*) 617.
Eschscholzii (*Sphaeria*) 617.
Espinosaum (*Puccinia*) 281.
Esulæ (*Leptosphaeria*) 722.
Eucalypti (*Microthyrium*) 863.
euchæta (*Venturia*) 652.
Eucharidis (*Uredo*) 454.
Euchilæ (*Laboulbenia*) 920.
Eudaliæ (*Laboulbenia*) 920.
Eugenia (*Mycosphaerella*) 637.
Eugeniæ (*Sphaerella*) 637.
eupatoriicola (*Cryptosporella*) 592.
Euphorbiæ (*Erysiphe*) 526.
Euphorbiæ (*Leptosphaeria*) 722.
Euphorbiæ (*Leptosphaeriopsis*) 731.
Euphorbiæ-Astragali (*Uromyces*) 470.
Euphorbiæ-cannatæ (*Uromyces*) 249.
Euphorbiæ-Corniculatæ (*Uromyces*) 470.
Euphrasiæ (*Coleosporium*) 461.
Eupomatia (*Asterella*) 882.
europea (*Heterochaete*) 209.
Euterpeæ (*Rosellinia*) 593.
Eutremæ (*Puccinia*) 355.
eutypelloidea (*Cryptovalsa*) 568.
evolvens (*Corticium*) 170.
evonymella (*Pleospora*) 749.
Evonymi-Capræarum (*Melampsora*) 463.
Evonymi-Incanæ (*Melampsora*) 463.
excavatum (*Secotium*) 101.
excavatus (*Strobilomyces*) 101.
excentrica (*Deltischia*) 687.
excentrica (*Flammula*) 69.
excipulata (*Uredo*) 447.
exigua (*Eutypella*) 555.
exigua (*Laboulbenia*) 920.
exigua (*Thelephora*) 161.
exigua (*Ustilago*) 475.
exiguella (*Lisea*) 807.
exiguella (*Verrucaria*) 807.
exiguus (*Hypomyces*) 806.
exilis (*Meliola*) 552.
exilis (*Puccinia*) 352.
eximia (*Phyllachora*) 838.
exitiosa (*Puccinia*) 321.
exitiosum (*Cæoma*) 458.
exitiosus (*Mucor*) 495.
expansa (*Puccinia*) 272.
extensicola (*Puccinia*) 466.
externa (*Cintractia*) 490.
externa (*Tilletia*) 480.
extinctoriiformis (*Agaricus*) 84.
Fagi (*Thyridaria*) 741.
faginea (*Trematosphaeria*) 735.
faginea (*Zignoella*) 710.
Falcariae (*Puccinia*) 393.
Falconeri (*Pleospora*) 752.
farinacea (*Puccinia*) 325.
farinosa (*Kneiffia*) 178.
farinosa (*Uredo*) 519.
farinosa (*Valsa*) 563.
Farlowiana (*Pleospora*) 757.
Farrahi (*Entoloma*) 56.
fascicularis (*Mucronella*) 159.
fascicularis (*Pterula*) 200.
fastibilis parvulus (*Agaricus*) 67.
fastigiatum (*Hydnum*) 152.
Fatouæ (*Uromyces*) 253.
favosum (*Lycoperdon*) 229.
Feltgeni (*Diaporthe*) 668.
Feltgeni (*Didymosphaeria*) 679.
Feltgeni (*Ophiobolus*) 773.
Feltgeni (*Pleospora*) 755.
Fendleræ (*Strickeria*) 762.
Fendleræ (*Teichospora*) 762.
Fendleræ (*Trematosphaeria*) 735.
Fendleri (*Æcidium*) 432.
Fendleri (*Mycosphaerella*) 635.
Fendleri (*Sphaerella*) 635.
fendlericola (*Othia*) 689.
fenestrale (*Platystomum*) 889.
ferox (*Puccinia*) 276.
Ferrarisii (*Puccinia*) 344.
ferruginea (*Microsphaera*) 525.
ferruginea (*Trichopeltis*) 871.
ferrugineum (*Asteridium*) 884.
ferruginosa (*Puccinia*) 280.
Ferulæ (*Æcidium*) 422.

- Ferulæ* (Uromyces) 248.
Ferulaginis (Uromyces) 248.
Festucæ (Ophiobolus) 774.
Festucæ (Puccinia) 466.
Festucæ-tenellæ (Ustilago) 477.
Feurichii (Melampsorella) 267.
fibrillosa (Nolanea) 59.
fibrillosum (Tylostoma) 221.
Fiebrigii (Auerswaldia) 842.
filicicolum (Hyaloderma) 529.
filicina (Phyllachora) 840.
filicina (Pleospora) 757.
filiformis (Ustilago) 477.
fimbriata (Roestelia) 409.
fimicola (Hypochoera) 606.
firma (Naucoria) 71.
firma (Puccinia) 466.
fisso-lobata (Hymenochæte) 166.
flabellatus (Marasmius) 47.
flaccida (Laboulbenia) 920.
flaccidum (Cronarium) 461.
Flageoletiana (Nitschkea) 561.
Flageoletiana (Sphaerella) 613.
Fleischeri (Cordyceps) 822.
flava (Tomentella) 189.
flavescens (Puccinia) 381.
flavescens (Trametes) 137.
flavidulus (Marasmius) 41.
flavidus (Lentinus) 49.
flavipes (Gomphidius) 94.
flaviceps (Russula) 33.
flavo-brunnea (Coniophora) 183.
flavo-brunnea (Leptosphaeria) 729.
flavoconia (Amanita) 1.
flavo-fuliginosus (Pluteus) 54.
flavo-fusca (Inocybe) 65.
flavo-fusca (Pyrenophora) 757.
flavo-nigrescens (Ustilaginidea) 492.
flavo-nigrescens (Ustilago) 492.
flavo-rubescens (Amanita) 1.
flavus (Mucor) 495.
floccifera (Pluteus) 54.
flocculenta (Cyphella) 191.
flocculenta (Thelephora) 191.
flocculentum (Corticium) 191.
Floerkeæ (Peronospora) 522.
floridana (Hexagona) 144.
floridana (Hysterostomella) 892.
floridana (Thelephora) 187.
floridana (Uredo) 450.
floridanus (Favolus) 144.
Floscopæ (Uredo) 453.
flosculosa (Nummularia) 619.
foeniculacea (Leptosphaeria) 720.
foetidus (Lactarius) 29.
follicola (Ophionectria) 816.
forabilis (Diaporthe) 671.
Forficulæ (Dimeromyces) 915.
forficularis (Herpomyces) 916.
formicarum (Laboulbenia) 920.
Forsteroniæ (Dimerium) 537.
Fourcroyæ (Physalospora) 584.
foveolata (Dasyospora) 392.
fragilis (Favolus) 143.
fragilis (Hexagona) 143.
fragilis (Psathyrella) 94.
fragrans (Ravenelia) 403.
Franciscana (Battarrea) 225.
Frangulæ (Didymosphaeria) 679.
Frangulæ (Kneiffia) 177.
Franseriæ (Puccinia) 300.
Fraseræ (Æcidium) 420.
Fraseræ (Uromyces) 248.
fraudulentum (Platyostomum) 889.
fraxinata (Puccinia) 466.
fraxinata (Puccinia) 385.
fraxinatum (Peridermium) 385.
fraxineum (Myrmæcium) 675.
Fraxini (Æcidium) 385.
Fraxini-Bungeanæ (Æcidium) 420.
fraxinicola (Wallrothiella) 588.
Friesii v. *Salicis* (Enchytraea) 560.
fruticicola (Nectria) 785.
fructigena (Glomerella) 573.
frustulosum (Corticium) 171.
fruticum (Ophiobolus) 771.
Fuckelii (Puccinia) 293.
Fuirenæ (Uredo) 455.
fuliginosa (Hymenochæte) 167.
fuliginosum (Stereum) 167.
fulvescens (Hypochnus) 186.
fulvo-squamosa (Pholiota) 62.
Fumago (Dimerium) 537.
fumosa (Poria) 132.
fumosaria (Didymosphaeria) 681.
fumosaria (Verrucaria) 681.
fumosus (Boletus) 96.
fungicolum (Rhizophidium) 512.
furfuraceus (Hypochnus) 188.
fusca (Hypochnopsis) 189.
fuscatus (Hypochnus) 189.
fuscella (Leptosphaeria) 726.
fuscella (Nummularia) 618.
fuscescens (Ceriosporella) 707.

- fusco-ferruginosus (*Hypochnus*) 184.
 fusco-maculatus (*Polyporus*) 112.
 fusco-paraphysata (*Seynesia*) 367.
 fusco-pulveracea (*Meliola*) 546.
 fusco-purpurea (*Mycena*) 18.
 fuscosporus (*Coprinus*) 92.
 fusco-violaceum (*Septobasidium*) 203.
 fuscus (*Mucor*) 495.
 fusiformis (*Laboulbenia*) 920.
fusiger (*Endococcus*) 683.
 fusigera (*Didymosphæria*) 683.
 fusispora (*Didymella*) 653.
 fusispora (*Naucoria*) 72.
 fusispora (*Puccinia*) 362.

Gaduzæ (*Echinodothis*) 819.
Gaduzæ (*Rhizophographus*) 858.
Gaduzæ (*Scolecopeltis*) 874.
Galactitis (*Puccinia*) 283.
Galanthi-Fragilis (*Meiampsora*) 463.
Galasizæ (*Æcidium*) 412.
Galatellæ (*Puccinia*) 284.
galatica (*Puccinia*) 291.
Galenizæ (*Puccinia*) 361.
Galeodolonis (*Leptosphæria*) 725.
galericola (*Hypomyces*) 805.
Galii (*Puccinia*) 393.
Galii-elliptici (*Puccinia*) 318.
Galii-silvatici (*Puccinia*) 389.
gallica (*Winterina*) 708.
gallicum (*Anthostoma*) 635.
galligena (*Nectria*) 788.
Garcillasæ (*Uredo*) 437.
Garciniæ (*Micropeltis*) 869.
Garciniæ (*Zignoella*) 709.
Gardeniæ (*Hypochnus*) 184.
Gardeniæ-Thumbergiæ (*Uredo*) 440.
gardeniicolum (*Dimerium*) 539.
gardeniicolum (*Dimerosporium*) 539.
Gardoquiæ (*Asterella*) 833.
garganica (*Sphærella*) 644.
Gastrolobii (*Lizoniella*) 661.
Gaudichaudii (*Uredo*) 437.
gaveensis (*Mycosphærella*) 640.
gaveensis (*Sphærella*) 640.
Gaylussaciæ (*Phyllachora*) 836.
Gayophyti (*Puccinia*) 347.
gemella (*Puccinia*) 358.
gentianeum (*Cronartium*) 461.
geogenium (*Corticium*) 170.
geographicola (*Leptosphæria*) 731.
geographicola (*Phæospora*) 731.

geophilicola (*Uredo*) 439.
geophilus (*Mucor*) 496.
geophyllus (*Marasmius*) 45.
Georginæ (*Ophiobolus*) 772.
Gerardiæ (*Puccinia*) 322.
Giacomellianus (*Geaster*) 223.
gibbosus (*Chytridium*) 513.
Gibbsii (*Coprinus*) 93.
Giberti (*Puccinia*) 391.
gigantasca (*Pleospora*) 756.
gigantea (*Kneiffia*) 182.
gigantea (*Nectria*) 792.
giganteus (*Uromyces*) 256.
gigantisporea (*Puccinia*) 359.
gigantosporea (*Nectria*) 788.
gigaspora (*Fenestella*) 766.
Gilgiana (*Puccinia*) 314.
Gilgianum (*Dimerium*) 537.
Gillesii (*Puccinia*) 326.
Gillotii (*Polyporus*) 120.
glabra (*Pleoravenella*) 407.
glabra (*Syncephalis*) 509.
glabrum (*Corticium*) 180.
Glatfelteri (*Bolbitis*) 74.
Glatfelteri (*Lepiota*) 7.
glaucophylla (*Russula*) 33.
glaucopus (*Anthräsaceus*) 40.
glaucopus (*Marasmius*) 40.
glaucum (*Diploderma*) 229.
Gleadowii (*Polystictus*) 130.
glebarum (*Arthopyrenia*) 649.
glebarum (*Pharcidia*) 649.
Glechomæ (*Sphærella*) 642.
Gliæ (*Uredo*) 443.
globosa (*Sordaria*) 602.
globosum (*Gymnosporangium*) 462.
globosum (*Rhizoclosmatium*) 516.
glomerata (*Puccinia*) 276.
glumarum (*Puccinia*) 380 et 466.
glumarum (*Uredo*) 380.
glutinosus (*Hygrophorus*) 27.
glutinosus (*Pluteolus*) 74.
Glyceriæ (*Pleospora*) 756.
Glycosmæ (*Mycosphærella*) 638.
Glycosmæ (*Sphærella*) 638.
Gnaphalii (*Dimerosporium*) 534.
Gnaphalii (*Puccinia*) 391.
Gnaphalii (*Stigmataea*) 649.
Gnaphalii (*Uredo*) 391.
Gœldiana (*Uredo*) 450.
Gœppertianum (*Pucciniastrum*) 470.
Gœtzel (*Polyporus*) 106.

- Gollani (Daldinia) 617.
 Gollani (Phollota) 62.
 Gollani (Podaxon) 219.
 Gollani (Polystictus) 130.
 Gollmerianus (Ascopolyporus) 819.
 gonatosporus (Ophiobolus) 769.
 Gonospermi (Puccinia) 300.
 Goodeniae (Sphaerella) 638.
 goyazensis (Didymella) 656.
 gracile (Gymnosporangium) 271.
 gracile (Tylostoma) 221.
 gracilis (Clavaria) 197.
 gracilis (Clitocybe) 11.
 gracilis (Darwinifella) 856.
 gracilis (Dothidella) 856.
 gracilis (Pluteolus) 74.
 gracillima (Xylaria) 631.
 graminea (Linospora) 766.
 graminicola (Pleurotellus) 23.
 graminicola (Pleurotus) 26.
 graminicola (Saccoblastia) 203.
 graminicola (Sclerospora) 520.
 graminis (Ophiobolus) 774.
 graminis (Puccinia) 466.
 graminis (Uromyces) 470.
 graminum (Sphaerella) 645.
 grammica (Xylaria) 623.
 grandis (Ceratosphæria) 716.
 grandis (Clavaria) 195.
 grandis (Phollota) 62.
 Grangei (Schulzeria) 8.
 granosa (Thelephora) 180.
 granosus (Hypochnus) 189.
 granulata (Russula) 32.
 granulosa (Amphisphaeria) 685.
 granulosa (Flammula) 70.
 granulosa (Urocystis) 492.
 Granulosæ (Phæospora) 718.
 granuloso-verrucosa (Phollota) 64.
 graphidioides (Gloniella) 905.
 graphidosporum (Platystomum) 889.
 graveolens (Æcidium) 384.
 graveolens (Entoloma) 56.
 gregaria (Puccinia) 392.
 gregarium (Platystomum) 889.
 Grewiæ (Stigmata) 650.
 Griffithsii (Battarrea) 224.
 Griffithsii (Philocopra) 607.
 Grindeliæ (Æcidium) 411.
 grisea (Amanita) 2.
 grisea (Stropharia) 87.
 griseo-flavus (Marasmius) 40.
 griseo-viridis (Pluteus) 53.
 griseola (Puccinia) 326.
 griseum (Phragmidium) 399.
 griseus (Boletus) 100.
 griseus (Gyroporus) 100.
 Grossulariæ (Sphaerella) 643.
 grumosa (Puccinia) 364.
 Guadalaquivæ (Æcidium) 419.
 Guardiolæ (Puccinia) 299.
 Guareæ (Æcidium) 427.
 Guettardiæ (Scolecopetis) 874.
 Gussonei (Lenzites) 52.
 Gymnopogonis (Puccinia) 380.
 Gynerii (Phæoscutella) 872.
 Gynerii (Rhopographus) 858.
 gyrosa (Cryphonectria) 784.
 gyrosa (Nectria) 784.
 Gyrophoræ (Didymosphaeria) 682.
 Gyrophoræ (Pharcidia) 682.
 habunguense (Æcidium) 418.
 Hamatoxylis (Pyropolyporus) 118.
 Hæmatoxylis (Fomes) 118.
 Hæmodori (Puccinia) 366.
 halophila (Lizoniella) 661.
 halophila (Ustilago) 477.
 Hamamelidis (Æcidium) 423.
 hamatum (Dimerium) 537.
 hamatum (Lachnocladium) 198.
 Hammari (Phyllachora) 829.
 Hammari (Uredo) 440.
 Hammariana (Seynesia) 867.
 Haplophylli (Uredo) 445.
 haplospora (Müllerella) 593.
 haplosporus (Endococcus) 593.
 haplotella (Müllerella) 593.
 haplotellus (Endococcus) 593.
 Harmandi (Pleurotus) 25.
 Harrimani (Microthyrium) 864.
 hawaiiensis (Laboulbenia) 921.
 Hazslinskyi (Otthiella) 662.
 Hedenii (Fulminaria) 512.
 Hedenii (Harpochytrium) 512.
 Hederæ (Didymosphaeria) 678.
 Hederæ (Metasphaeria) 696.
 Hederæ (Microthyrium) 863.
 Hederæ (Phomatosporea) 578.
 Helianthellæ (Æcidium) 411.
 Helianthellæ (Puccinia) 299.
 Heliconiæ (Dothideella) 850.
 Helini (Uredo) 444.

- Heliocarpi* (Puccinia) 349.
heliotropicola (Puccinia) 331.
Hellebori (Ophiobolus) 769.
Helleri (*Melanospora*) 781.
Helleri (*Sphaeroderma*) 781.
Hellerianus (*Uromyces*) 245.
Helluodis (*Laboulbenia*) 921.
Helluomorphæ (*Laboulbenia*) 921.
helopus (*Polyporus*) 107.
Helosciadii (*Ecidium*) 347.
helvelloides (*Cantharellus*) 37.
helvetica (*Grandinia*) 155.
hemiglossa (*Xylaria*) 625.
hemisphærica (*Poronia*) 620.
hemisphærica (Puccinia) 302.
hemisphærica (*Urophlyctis*) 515.
hemisphæricum (*Acidium*) 302.
hemisphæricum (*Entyloma*) 515.
hemisphæricum (*Scleroderma*) 235.
hemisphæricus (*Edomyces*) 515.
hemisphæricus (*Uromyces*) 515.
Henningsiana (*Lepiota*) 5.
Henningsiana (*Pleospora*) 753.
Henningsii (*Agaricus*) 61.
Henningsii (*Ecclia*) 61.
Henningsii (*Uredo*) 456.
Henrietteæ (*Agaricus*) 15.
Henrietteæ (*Clitocybe*) 15.
Henryana (Puccinia) 367.
Heraclei (*Acanthostigma*) 712.
Heraclei (Puccinia) 342.
herbarum (*Pleospora*) 748.
Heribaudii (*Nidularia*) 216.
herpotricha (*Lentomita*) 663.
herpotrichum (*Melanomma*) 733.
Hertæ (*Sphaerella*) 640.
heteracantha (*Peroneutypa*) 569.
heterizans (*Phæospora*) 718.
heterizans (*Verrucaria*) 718.
heterochaeta (*Philocopru*) 606.
heterochaeta (*Pleurage*) 606.
heterogamus (*Mucor*) 500.
heterogamus (*Zygorhynchus*) 500.
heterogena (*Ustilago*) 475.
heterophracta (*Leptosphaerulina*) 746.
heterophractus (*Endococcus*) 746.
Heteropteridis (*Asteridium*) 885.
Heteropteridis (*Phyllachora*) 837.
heterosporum (*Phragmidium*) 399.
Hetieri (*Lepiota*) 5.
Heucherae (Puccinia) 393.
Heucherae (*Uredo*) 393.
Heuchera v. asiaticæ (Puccinia) 392.
Heveæ (*Ophiobolus*) 772.
hians (*Hysterium*) 913.
Hibisei (*Didymella*) 654.
Hibisci (*Uredo*) 445.
hibisciutum (*Ecidium*) 374.
hibisciutum (Puccinia) 374.
hiemalis (*Mucor*) 494.
Hieracii (*Gnomonia*) 664.
hieronense (*Entyloma*) 483.
Hieronymi (*Pleoravenelia*) 407.
Hieronymi (*Vizella*) 861.
himalensis (Puccinia) 386.
Himantia (*Odontia*) 156.
himantioides (*Merulius*) 145.
Hippophaës (*Didymosphaeria*) 677.
Hippophaës (*Leptosphaeria*) 726.
Hippophaës (*Rosellinia*) 599.
Hircini (*Catharinia*) 743.
Hircini (*Diaporthe*) 674.
Hircini (*Metasphaeria*) 695.
Hirculi (*Melampsora*) 264.
hirsutus (*Cyathus*) 214.
hispidæ (*Berlesiella*) 745.
hispidæ (*Enchyosphaeria*) 713.
hispidæ (*Trogia*) 37.
Hoffmanni (*Botryosphaeria*) 590.
Hoffmanni (*Lachnocladium*) 198.
Höhnelliana (*Fenestella*) 766.
Höhnelli (*Calonectria*) 810.
holeina (Puccinia) 379, 466.
holcina (*Uredo*) 379.
Hollandii (*Polyporus*) 111.
Hollosiana (*Disciseda*) 233.
Holmskjoldi (*Clavaria*) 195.
holocyanus (*Polyporus*) 105.
Holwayi (*Entyloma*) 482.
Holwayi (*Neoravenelia*) 408.
Holwayi (*Peridermium*) 408.
Holwayi (*Ravenelia*) 408.
Homalotæ (*Acallomyces*) 917.
Homolanthi (Puccinia) 299.
hondurensis (*Favolus*) 141.
hondurensis (*Hevagana*) 141.
Hookeri (Puccinia) 379.
hortensis (*Leptonia*) 59.
hospitans (*Müllerella*) 594.
Houstoniæ (Puccinia) 317.
huallagense (*Ecidium*) 431.
huallagensis (*Asterina*) 879.
huallagensis (*Dothidella*) 848.
huallagensis (*Lembosia*) 898.

- huallagensis (Phyllachora) 834.
 huallagensis (Puccinia) 324.
 huallagensis (Uredo) 440.
 huallagensis (Uromyces) 250.
 Huberiana (Xylaria) 623.
 Huberianum (Stereum) 164.
 humicola (Mortierella) 506.
 humidulum (Hydnum) 149.
 humile (Tricholoma) 11.
 humilis (Laboulbenia) 921.
 humilis (Melampsora) 265.
 Humiræ (Seynesia) 866.
 hungarica (Bovista) 234.
 hungarica (Calvatia) 234.
 hungaricum (Lycoperdon) 232.
 hungaricus (Geaster) 227.
 Huræ (Hypoxylopsis) 885.
 hyalina (Debaryella) 809.
 hyalina (Sordaria) 604.
 hyalina (Uredo) 455.
 Hyalothecæ (Harpochytrium) 512.
 hydnoidea (Puccinia) 374.
 hydnoidea (Merulius) 146.
 hydnoideum (Æcidium) 374.
 Hydrangæ-paniculatæ (Æcidium) 429.
 Hydrocharitis (Tracya) 491.
 hygrocycoides (Marasmius) 40.
 hygrophanus (Boletus) 97.
 hygrophanus (Suillus) 97.
 hygrophila (Pharcidia) 649.
 hygrophilum (Platystomum) 899.
 hygrophilus (Endococcus) 649.
 hygrophilus (Mucor) 497.
 Hyoscyami (Peronospora) 522.
 Hyperici (Aporia) 893.
 Hyperici (Metasphaeria) 685.
 Hyperici (Schizothyrium) 893.
 Hyphænes (Pleomeliola) 554.
 Hyphaster (Asterina) 876.
 hyphicola (Ophioneetria) 816.
 hypoholomoides (Hygrophorus) 28.
 hypoholomoides (Stropharia) 85.
 hypnophilum (Corticium) 173.
 hypnophilum (Pleurotellus) 26.
 Hypochæridis (Puccinia) 302.
 Hypochæridis (Puccinia) 391.
 hypocrellicola (Nectria) 793.
 hypocreoides (Sphaerostilbe) 798.
 hypophylla (Lembosia) 899.
 hypostomatica (Sphaerella) 644.
 hypoxantha (Eutypa) 569.
 hypoxantha (Eutypa) 569.
 hypoxyloides (Amphisphaeria) 599.
 hypoxyloides (Hypocrea) 800.
 hypoxyloides (Rosellinia) 599.
 Hypoxylon (Xylaria) 628.
 hypsophila (Tilletia) 489.
 hypsophilus (Uromyces) 249.
 hyptidicola (Puccinia) 329.
 hyptidicolum (Dimerosporium) 536.
 Hyptidis (Æcidium) 391.
 Hyptidis (Ophioceras) 852.
 Hyptidis (Puccinia) 391.
 Hyssopi (Puccinia) 329.
 hysterioides (Botryosphaeria) 591.
 hysterioides (Platystomum) 890.
 hysterioides (Pseudographis) 905.
 Icerbæ (Pseudographis) 906.
 Ichnaspidis (Broomella) 813.
 Idæi (Didymosphaeria) 677.
 ignescens (Cantharellus) 35.
 Ikeni (Hydnum) 147.
 illicicola (Glioniopsis) 910.
 illicicola (Polyporus) 110.
 illicicolum (Hysterographium) 910.
 illuminans (Mycena) 20.
 Illyricum (Stereum) 164.
 imitans (Puccinia) 324.
 Immersæ (Didymella) 657.
 Impatientis-Elymi (Puccinia) 467.
 imperspicua (Puccinia) 345.
 imperspicuum (Dimerium) 537.
 implexicola (Sphaerella) 641.
 inanipes (Puccinia) 281.
 incana (Dædalea) 139.
 incana (Dædaleopsis) 139.
 incarnata (Eichleriella) 208.
 incarnata (Hirneolina) 208.
 incarnata (Kneiffia) 182.
 incarnatum (Corticium) 182.
 incerta (Laboulbenia) 921.
 incertum (Æcidium) 411.
 incisa (Trichosphaeria) 588.
 incisum (Platystomum) 890.
 inclusa (Puccinia) 290.
 Incongruæ (Didymosphaeria) 681.
 inersianus (Chaetosphaeria) 736.
 incurvum (Æcidium) 410.
 indecorata (Russula) 30.
 indica (Holiotia) 63.
 Indigofera (Pleoravenelia) 407.
 Indigofera (Uromyces) 253.
 induratus (Uromyces) 246.

- inflata (Tremella) 205.
 inflorescentiæ (Ustilago) 473.
 infundibuliformis (Cyathus) 215.
 Ingæ (Glioniella) 903.
 ingicola (Uromyces) 254.
 innata (Pharcidia) 647.
 innata (Verrucaria) 647.
 inopinata (Puccinia) 274.
 inops (Platystomum) 839.
 Inouyei (Æcidium) 428.
 insidiosa (Hymenobia) 797.
 insidiosa (Læstadia) 574.
 insidiosa (Neotria) 797.
 insidiosum (Lophiostoma) 838.
 insignis (Hypocrea) 800.
 insignis (Laboulbenia) 921.
 insignis (Puccinia) 398.
 insulare (Ganoderma) 125.
 insulare (Placidium) 586.
 insularis (Fomes) 125.
 insularis (Physalospora) 586.
 intermedium (Harpochytrium) 513.
 intermedium (Helicostylum) 453.
 intermedium (Olpidium) 511.
 intermixta (Caloneotria) 811.
 intybacea (Thelephora) 161.
 Inulæ (Coleosporium) 461.
 Inulæ (Ophiocæta) 775.
 Inulæ-Helenii (Æcidium) 411.
 involvens (Æcidium) 392.
 Ipomœæ (Meliola) 549.
 Ipomœæ (Metasphæria) 700.
 Ipomœæ-pandurata (Æcidium) 315.
 Ipomœæ-pandurata (Puccinia) 315.
 iquitosense (Æcidium) 415.
 iquitosensis (Meliola) 547.
 Iriartæ (Nectria) 793.
 iridigena (Leptosphæria) 729.
 irregulare (Entoloma) 57.
 irregularis (Amphisphæria) 634.
 irregularis (Olpidiopsis) 511.
 irregularis (Tryblidiella) 903.
 irrorata (Collybia) 17.
 isabellina (Mortierella) 506.
 isabellinum (Corticium) 172.
 isabellinus (Hypochnus) 189.
 isabellinus (Hypochnus) 172.
 isariphora (Peroneutypella) 570.
 Ischæmi (Cintractia) 487.
 Ischæmi (Sphacelotheca) 437.
 Ischæmi (Ustilago) 487.
 Ischnosiphonis (Uredo) 453.
 isoderma (Puccinia) 393.
 Isoglossæ (Æcidium) 416.
 istriaca (Puccinia) 331.
 italica (Diaporthe) 671.
 italica (Henriquesia) 694.
 italica (Meliola) 553.
 Ivesiæ (Phragmidium) 400.
 Jacæ (Metasphæria) 698.
 Jacquemontæ (Æcidium) 419.
 Jacquiniæ (Lizoniella) 661.
 jalapense (Æcidium) 417.
 jaliscensis (Puccinia) 388.
 jamaicensis (Fomes) 118.
 jamaicensis (Pyropolyporus) 118.
 Jambosæ (Puccinia) 349.
 Jamesiana (Puccinia) 466.
 japonica (Calostoma) 225.
 japonica (Laboulbenia) 921.
 japonica (Urocystis) 492.
 japonicum (Gymnosporangium) 462.
 japonicus (Mitremyces) 225.
 japonicus (Rhizopus) 503.
 Jasmini-Chrysopogonis (Puccinia) 466.
 Japoniæ (Uredo) 437.
 jaundensis (Naucoria) 72.
 javanica (Fleischeria) 820.
 javanica (Limacina) 558.
 javanicum (Capnodium) 558.
 javanicum (Corticium) 163.
 javensis (Cordyceps) 826.
 joaquiensis (Cordyceps) 825.
 Joffrini (Uromyces) 258.
 Johansonii (Lizoniella) 661.
 Johnsonii (Lepiota) 6.
 Johnsonii (Pistillaria) 201.
 jonides (Marasmius) 40.
 Jostephanes (Puccinia) 299.
 juglandicola (Amphisphæria) 685.
 juglandina (Cucurbitaria) 765.
 juglandina (Pleospora) 753.
 juglandina (Spegazzinula) 808.
 Juglandis (Metasphæria) 702.
 Junci (Leptosphæria) 728.
 Junci (Uromyces) 470.
 juncicola (Ophiobolus) 774.
 juncina (Metasphæria) 703.
 juncina (Uredo) 454.
 juncinus (Uromyces) 454.
 Juniperi (Amphisphæria) 684.
 Juniperi (Diaporthe) 670.
 Juniperi (Trematosphæria) 735.

- Juniperi (Xerocarpus)* 181.
juniperinum (Gymnosporangium) 462.
Juniperi (Xylaria) 627.
jur anum (Dryodon) 150.
jur anum (Hydnum) 150.
jurensis (Polystictus) 127.
Jurineæ (Puccinia) 293.
jur uana (Dothidea) 854.
jur uana (Hypocrella) 817.
jur uana (Meliola) 548.
jur uana (Paranectria) 812.
jur uana (Physalospora) 582.
jur uana (Seynesia) 865.
jur uana (Zukalia) 543.
juruanum (Aulographum) 895.
juruanus (Polyporus) 112.
jur uense (Æcidium) 431.
jur uense (Hypoxylon) 612.
jur uense (Lycoperdon) 231.
jur uensis (Actiniopsis) 871.
jur uensis (Cyphella) 192.
jur uensis (Cordyceps) 827.
jur uensis (Geaster) 228.
jur uensis (Gibbera) 662.
jur uensis (Guepinia) 206.
jur uensis (Hygrophorus) 29.
jur uensis (Naucoria) 73.
jur uensis (Nectria) 793.
jur uensis (Penicillioptosis) 528.
jur uensis (Phæopterula) 201.
jur uensis (Phyllachora) 831.
jur uensis (Uredo) 442.
jur uensis (Xylaria) 631.

Kabatianus (Uromyces) 249.
kakelense (Æcidium) 423.
kampuluvensis (Uredo) 450.
kansense (Tylostoma) 220.
kansensis (Hypocopa) 605.
kansensis (Pleospora) 747.
kansensis (Pleurage) 602.
kansensis (Sordaria) 602.
kansensis (Sporormia) 738.
karellica (Puccinia) 373.
karstenii (Peniophora) 179.
Kentiae (Pleospora) 754.
kermanensis (Puccinia) 292.
Klebahni (Melampsora) 463.
Klitzingii (Lysurus) 214.
Knautiae (Leptosphaeria) 726.
Kolaczakii (Ustilago) 487.
komabense (Corticium) 169.

komabensis (Thelephora) 162.
Komarowii (Claslopsora) 264.
Komarowii (Puccinia) 350.
Komarowii (Uromyces) 245.
Körberi (Leptoglyphis) 705.
Körberi (Leptosphaeria) 705.
Körberi (Metasphaeria) 705.
kozukensis (Puccinia) 379.
Kraunhiæ (Phacopsora) 267.
Kriegeriana (Melampsorella) 267.
Kriegeriana (Phlebia) 155.
Kriegeriana (Uredo) 451.
Kriegeriana (Valsaria) 691.
Krigiæ (Puccinia) 298.
krjukowensis (Elasmomyces) 218.
krjukowensis (Secotium) 218.
Kummeriana (Septoria) 59.
Kundmanniæ (Puccinia) 347.
Kunzei (Venturia) 651.
Kusanoana (Ustilago) 477.
Kusanoi (Dothidella) 850.
Kusanoi (Eutypa) 568.
Kusanoi (Pucciniastrum) 401.

labens (Leptosphaeria) 727.
labens (Microcyclus) 845.
Labiatarum (Dimerium) 537.
labiatus (Leucoporus) 113.
labiatus (Polyporus) 113.
laceratus (Crepidotus) 76.
lachnocephala (Collybia) 16.
laciniata (Battarrea) 224.
laciniata (Thelephora) 161.
Lacroixii (Cordyceps) 826.
lactescens (Corticium) 170.
lactescens (Polystictus) 130.
lacteus (Irpey) 153.
Lactucarum (Puccinia) 303.
lactucina (Puccinia) 303.
lactucinum (Æcidium) 371.
lacunosus (Boletus) 97.
lacustre (Thelidium) 647.
lacustris (Pharcidia) 647.
lacustris (Pleospora) 756.
laticolor (Merulius) 145.
laticolor (Polyporus) 102.
laticolor (Scutiger) 102.
lætum (Corticium) 173.
lætum (Hyphoderma) 173.
Lagerheimi (Lizoniella) 661.
Lagunæ (Cantharellus) 37.
Lagunæ (Dictyotus) 37.

- Laguncularia (Meliola) 547.
 lamelliporus (Lentinus) 49.
 lamellosa (Poria) 139.
 Langloisii (Dimerium) 537.
 Langloisii (Pomes) 118.
Langloisii (Pyropolyporus) 118.
 lapponica (Ophiognomonia) 776.
 laricina (Herpotrichia) 715.
 laricina (Hysterop-is) 909.
 Laricis-Capræarum (Melampsora) 463.
 Laricis-Daphnoidis (Melampsora) 463.
 Laricis-epitea (Melampsora) 463.
 Laricis-Nigricantis (Melampsora) 463.
 Laricis-Pentandræ (Melampsora) 463.
 Laricis-populina (Melampsora) 463.
 Laricis-Purpureæ (Melampsora) 463.
 Laricis-Tremulæ (Melampsora) 463.
larigna (Gloniopsis) 909.
 larigna (Hysteropsis) 909.
larviformis (Helicomyces) 519.
 larvata (Podocrea) 799.
 larviformis (Drepanoconis) 519.
 larviformis (Meliola) 548.
 Laserpitii (Puccinia) 342.
 latericium (Dimerium) 537.
 Lathyri (Leptosphaeria) 722.
 latitans (Didymella) 657.
latitans (Obyrium) 657.
 latitans (Valsaria) 692.
 Latonæ (Laboulbenia) 921.
 Laurentiana (Puccinia) 553.
 Lauxantæ (Entomophthora) 510.
 laxa (Pterula) 201.
lawa (Thelephora) 170.
 Leandræ (Anerswaldia) 842.
 Ledi (Chrysomyxa) 460.
 lejoderma (Puccinia) 341.
 Le-Monnieriana (Piptocephalis) 508.
 lentiformis (Metasphaeria) 701.
 lentinoides (Polyporus) 113.
 leontidicola (Puccinia) 328.
 Leontices (Æcidium) 432.
 Leontodontis (Puccinia) 304.
 Leopoldina (Peroneutypa) 569.
 Lepachydis (Physalospora) 592.
 Lepargyræ (Valsa) 563.
 Lepidagathis (Dimerium) 540.
Lepidagathis (Dimerosporium) 540.
 lepidicola (Theospora) 747.
 Lepidoboli (Tolyposporium) 491.
 lepiotoides (Russula) 32.
 lepiotoides (Stropharia) 86.
 leporina (Delitschia) 687.
leproides (Physoderma) 515.
leproides (Urophlyctis) 515.
 leptoderma (Phellorina) 239.
 leptopus (Marasmius) 39.
 leptosperma (Puccinia) 390.
 leptospermus (Geaster) 228.
 leptospora (Sphaerella) 644.
 leptothecium (Lophium) 914.
 Le-Ratii (Squamotubera) 621.
 Leucadis (Puccinia) 329.
 Leucariæ (Ravenelia) 407.
leucanthematum (Cecoma) 369.
Leucanthemi (Æcidium) 369.
 Leucanthemi (Entyloma) 482.
 leuceriicola (Puccinia) 313.
 leucocreas (Xyoxylon) 613.
leucoderma utriculicola (Cintractia) 479.
 leucophaea (Hirneolina) 209.
 leucosticta (Homostegia) 857.
 leucostroma (Melanconiella) 691.
 Leuzæ (Puccinia) 298.
 levantica (Gloniopsis) 910.
 leve (Corticium) 170.
leve (Corticium) 181.
 leve (Diorechidium) 395.
 levigata (Kneiffia) 181.
 levis (Kneiffia) 181.
 levis (Pleoravenelia) 407.
levis (Puccinia) 395.
 levispora (Battarreia) 224.
 Libertæ (Asterina) 880.
 lichenoides (Kretzschmaria) 614.
 lichenum (Pharcidia) 649.
 Ligericæ (Puccinia) 467.
 Ligniaria (Collybia) 17.
 lignicola (Didymosphaeria) 670.
 lignicola (Geaster) 228.
 lilacina (Cyphella) 192.
 lilacea (Tulasnella) 210.
 Lili-cordifolii (Æcidium) 435.
 liliputiana (Volvaria) 53.
 limitata (Cintractia) 480.
 Limosæ (Puccinia) 467.
 limpidus (Mucor) 493.
 Lindrothii (Puccinia) 354.
 Lindseæ (Uredo) 451.
 linearis (Puccinia) 467.
 lineata (Sphaerella) 641.
lineatum (Mycosphaerium) 641.
 lineolatus (Uromyces) 470.
 Lini (Entyloma) 482.

- Lionnetii* (Fomes) 124.
Lionnetii (*Ganoderma*) 124.
Lippiae (Meliola) 546.
Lippiae (Uredo) 441.
Lippiae-sidoidis (*Aecidium*) 418.
Liriodendri (*Metasphaeria*) 700.
lithophylloides (*Polyporus*) 107.
Lithospermi (*Pleosphaeria*) 763.
Litsea (*Aecidium*) 355.
Litsea (*Dimerosporium*) 533.
Litsea (*Puccinia*) 355.
lividum (*Protohydnum*) 153.
Lloydii (Geaster) 226.
Lloydii (*Podocrea*) 799.
Lobeliae (*Puccinia*) 391.
locellata (*Poria*) 132.
locellatus (*Physisporus*) 132.
locusticola (*Mucor*) 435.
locustiphila (*Cordyceps*) 824.
Lönnbohmlii (*Poria*) 135.
Lolii (*Puccinia*) 467.
lonchocarpicola (*Dothidella*) 847.
longaense (*Aecidium*) 420.
longaensis (Uredo) 450.
Longiana (*Puccinia*) 321.
Longiana (*Ravenelia*) 404.
Longiana (*Xylaria*) 628.
longicaudata (*Pleurogaster*) 601.
longicaudata (*Sordaria*) 601.
longicaulis (*Corethromyces*) 917.
longicollis (*Spumatoria*) 653.
longipes (*Sporormia*) 737.
longirostrata (*Peroneutypella*) 570.
longirostrata (*Valsa*) 570.
longirostris (*Endothia*) 675.
longispora (*Kneiffia*) 181.
longispora (*Leptosphaeria*) 773.
longispora (*Rhynchonectria*) 799.
longisporus (*Eleutheromyces*) 799.
longissima (*Puccinia*) 467.
lopadothoma (*Rhynchosphaeria*) 740.
lopadothomum (*Melanomma*) 740.
lophlostomacea (*Lembosia*) 900.
luandensis (*Puccinia*) 330.
Lugae (*Puccinia*) 298.
lungusaensis (*Phyllachora*) 831.
lupina (*Leptosphaeria*) 720.
Lupini (*Dicoma*) 263.
Lupini (*Trematosphaeria*) 734.
Lupini (*Uromyces*) 263.
lupinicola (*Leptosphaeria*) 720.
lupinicola (*Uromyces*) 263.
lurida (*Conicophora*) 183.
lusitanica (*Odontia*) 157.
lutea (*Guepinia*) 206.
lutea (*Sphaerostilbella*) 778.
luteo-alba (*Clavaria*) 196.
luteo-basis (*Russula*) 34.
luteolus (*Panus*) 50.
luteo-pilosa (*Nectria*) 732.
luteo-rostrata (*Torrubiella*) 817.
luteum (*Entoloma*) 57.
luticola (*Lasio-sphaeria*) 714.
luxemburgensis (*Leptosphaeria*) 723.
luxurians (*Puccinia*) 376.
luxurians (*Puccinia*) 390.
luxuriosa (*Puccinia*) 390.
Luzula (*Clitracia*) 481.
Luzula (*Metasphaeria*) 704.
Luzula (*Pleospora*) 755.
Luzula (*Ustilago*) 481.
Lycocotoni (*Aecidium*) 358.
Lycocotoni (*Puccinia*) 358.
Lycocotoni (Uredo) 358.
lycoperdoides (*Schulzeria*) 9.
lycuroides (*Ustilago*) 477.
Lysimachiae (*Puccinia*) 394.
Mac-Alpini (*Puccinia*) 391.
Macaranga (*Dimerium*) 539.
Macaranga (*Dimerosporium*) 539.
Macaranga (*Englerula*) 529.
maceiensis (Uredo) 444.
machnericola (*Physalospora*) 581.
machariophila (*Dothidella*) 847.
Machili (*Aecidium*) 430.
macilentus (*Pleurotus*) 25.
Maclagani (*Tilletia*) 490.
Maclagani (*Ustilago*) 490.
Mac-Owani (*Uromyces*) 258.
Mac-Owaniana (*Pleoravenelia*) 407.
macrescens (*Hydnum*) 152.
macrocarpa (*Ravenelia*) 406.
macrocarpa (*Gymnosporangium*) 462.
Macrosiphonia (*Phyllachora*) 837.
macrospora (*Acerbiella*) 763.
macrospora (*Cryptovalsa*) 567.
macrospora (*Didymosphaeria*) 680.
macrospora (*Graphiola*) 493.
macrospora (*Lasio-sphaeria*) 768.
macrospora (*Phyllachora*) 832.
macrospora (*Physalospora*) 579.
macrospora (*Seynesia*) 868.
macrosporum (*Corticium*) 174.

- Macrozamiæ (Cryptosporella) 593.
 maculans (Metasphæria) 703.
 macularis (Asterella) 883.
 maculatum (Scleroderma) 235.
 maculicola (Puccinia) 394.
 maculipes (Cortinaris) 80.
 maculosus (Polyporus) 104.
 madeirense (Lachnocladium) 198.
 madeirensis (Nectria) 796.
 madeirensis (Phyllachora) 833.
 madeirensis (Polystictus) 126.
 madeirensis (Rosellinia) 597.
 Madie (Coleosporium) 395.
 Madie (Puccinia) 282.
 Madie (Stichospora) 395.
 Magelhaenica (Puccinia) 384.
 magnatum (Æcidium) 435.
 magnifica (Russula) 30.
 magnivelaris (Stropharia) 86.
 Magnoliæ (Dimerium) 537.
 Magnoliæ (Metasphæria) 695.
 Magnoliæ (Pleomassaria) 759.
 Magnoliæ (Sporoctomorphia) 695.
 Magnoliæ (Valsaria) 692.
 Magnusiana (Melampsora) 463.
 Magnusiana (Puccinia) 467.
 Magnusii (Puccinia) 467.
 Mahoniæ (Pseudographia) 905.
 Majanthemi (Pyrenophora) 759.
 major (Broomella) 813.
 majuscula (Botryosphæria) 590.
 Makinoi (Cæoma) 459.
 Mali (Diaporthe) 668.
 Mali (Plowrightia) 845.
 malvicolum (Æcidium) 425.
 mamillata (Puccinia) 467.
 mammosa (Leptota) 7.
 mammosum (Tylostoma) 222.
 manaoense (Diorchidium) 394.
 manaoensis (Asterella) 882.
 manaoensis (Dothidea) 883.
 manaoensis (Lemaosia) 898.
 manaoensis (Meliola) 547.
 manaoensis (Micropeltis) 869.
 manaoensis (Parodiella) 542.
 manaoensis (Perisporina) 545.
 manaoensis (Phyllachora) 829.
 manaoensis (Physalospora) 582.
 manaoensis (Uleopeltis) 872.
 Mangaranga (Æcidium) 436.
 Mangifera (Bresadolia) 140.
 manihoticola (Meliola) 550.
 Manihotis (Dimerosporium) 536.
 Maprouneæ (Æcidium) 423.
 Maprouneæ (Phyllachora) 834.
 Maprouneæ (Uredo) 444.
 mararyense (Æcidium) 431.
 mararyensis (Dothideella) 848.
 mararyensis (Physalospora) 580.
 mararyensis (Uredo) 445.
 marasmiioides (Melanopus) 106.
 marasmiioides (Polyporus) 106.
 Marograviæ (Asteriella) 885.
 Marchanthiæ (Phæosphærella) 675.
 Marci (Æcidium) 424.
 marginalis (Flammula) 69.
 marginalis (Hypocrella) 818.
 marginata (Clitocybe) 12.
 marginata (Cyphella) 192.
 marginata (Massaria) 732.
 margine-incrassata (Uredo) 446.
 Mariæ-Wilsoni (Puccinia) 392.
 Marianæ (Puccinia) 284.
 Mariani (Septobasidium) 204.
 marinus (Pyrrhosorus) 516.
 Maritimæ (Uromyces) 470.
 marmellensis (Seynesia) 866.
 marmellosensis (Polyporus) 103.
 marmellosensis (Sphærostilbe) 798.
 Marsdeniæ (Puccinia) 334.
 Martii (Thelephora) 160.
 Martinatiana (Arthropryrenia) 648.
 Martinatiana (Pharoidia) 648.
 martinicensis (Mycenastrum) 237.
 martinicensis (Scleroderma) 237.
 martinicensis (Pholiota) 64.
 martinicensis (Xerotus) 51.
 massarioides (Didymosphæria) 677.
 massarioides (Pleospora) 752.
 Massel (Nectria) 735.
 mattogrossensis (Meliola) 550.
 Maublancii (Æcidium) 432.
 Mauritiæ (Sphæria) 587.
 Mauritiæ (Trabutia) 587.
 mauritiicola (Corallomyces) 897.
 maxima (Auerswaldia) 844.
 maxima (Capnodieella) 621.
 maximum (Capnodium) 621.
 Maydis (Phyllachora) 838.
 Maydis (Puccinia) 467.
 Maydis (Sphærulina) 694.
 Mayori (Æcidium) 417.
 media (Laboulbenia) 921.
 Medicaginis (Uredo) 445.

- Megalonychi* (Laboulbenia) 922.
magalospora (Trematosphaeria) 735.
megalotheca (Pleospora) 750.
megas (Seynesia) 868.
megastoma (*Diatrype*) 566.
Megatherium (Puccinia) 333.
Mei-mamillata (Puccinia) 467.
meizospora (Leptosphaeria) 729.
mejospora (Wallrothiella) 588.
Melaleucæ (Microthyrium) 863.
Melaleucæ (Phyllachora) 835.
Melampyri (Coleosporium) 461.
Melananthi (*Æcidium*) 416.
melanocephalus (Polyporus) 109.
melanocephalus (*Xanthochrous*) 109.
melanoderma (Anthostomella) 594.
melanomoides (Platystomum) 839.
melanopsis (Puccinia) 364.
melanostigmoides (Wallrothiella) 588.
melanotes (*Æcidium*) 430.
melasmioides (Puccinia) 357.
Melasphaerulæ (Uromyces) 260.
Melastomataceæ (Seynesia) 866.
Meliæ (Calonectria) 810.
Melicæ (Puccinia) 379.
Melicyti (Dothidella) 846.
Meliloti (Pleospora) 750.
membranaceus (Pleurotus) 24.
Memmingeri (*Coltricia*) 127.
Memmingeri (Polystictus) 127.
Memoræ (Asterina) 879.
Memoræ (Puccinia) 322.
mendozanum (Perisporium) 554.
Menieri (Tilletia) 490.
Mentzelæ (Stichopsora) 395.
Menziesiæ (Chrysomyxa) 396.
Mercurialis (*Cæoma*) 459.
Mercurialis (Nectria) 792.
Mercurialis (Uromyces) 249.
Mertensiæ (*Æcidium*) 419.
mexicana (Phyllachora) 832.
mexicana (Thecaphora) 483.
mexicanum (*Æcidium*) 432.
Mezerei (Diaporthe) 670.
Mezerei (Metasphaeria) 709.
Michaëlisii (Cordyceps) 825.
michailowskjanus (Elamomyce) 218.
michailowskjanus (*Secotium*) 218.
michailowskojenais (Chilonectria) 779.
michailowskojenais (*Lentinus*) 51.
michailowskoienais (Panus) 51.
Michelii (Clavaria) 197.
Miconiæ (Auerswaldia) 841.
Micranthæ (Puccinia) 378.
microcarpa (Nidula) 215.
microcarpa (Peroneutypa) 570.
microcarpum (Dimerium) 540.
microcarpum (*Dimerosporium*) 540.
microcarpum (Tichothectum) 676.
Microchlœ (Uromyces) 262.
Microlonchi (Puccinia) 287.
Micromeriæ (Puccinia) 328.
microscopica (Leptosphaeria) 729.
microscopicum (Microthyrium) 862.
microsora (Melampsora) 265.
microsorium (Hypoxylon) 613.
microsperma (Puccinia) 391.
microspermus (Agaricus) 83.
microsphincta (Puccinia) 337.
microspora (*Calostoma*) 225.
microspora (Daldinia) 618.
microspora (Delitschia) 686.
microspora (Endoxyla) 570.
microspora (*Gonatobotrys*) 598.
microspora (*Hezagona*) 148.
microspora (Hypocorpa) 606.
microspora (Kretzschmaria) 615.
microspora (Praetiflorella) 508.
microspora (Physalospora) 586.
microspora (Poria) 132.
microspora (Solenoplea) 619.
microspora (*Ustilago*) 475.
microspora (*Ustilago*) 473.
microspora (Valsaria) 692.
microsporium (Eurotium) 527.
microsporium (Glonium) 896.
microsporium (Melanomma) 793.
microsporus (Favolus) 143.
microsporus (Mitremyces) 225.
microsporus (*Physisporus*) 183.
microsporus (Pleurotus) 25.
microstoma (Diaporthe) 669.
microtheca (Asterella) 883.
microtheca (Asterina) 883.
microthyrioides (Auerswaldia) 843.
microthyrioides (Leptosphaeria) 727.
microthyrioides (Sphaerulina) 694.
Microtidis (Uromyces) 258.
microtricha (Rosellina) 599.
miedzyrzecensis (Platyglea) 204.
Mikanæ (Cystopus) 519.
Mikanæ (Dothidella) 849.
Mikanæ (Dothidella) 845.
Mikanæ (Microcyclus) 835.

- Millefolii* (Puccinia) 277.
millegrana (Rosellinia) 593.
mimosicola (*Mycospharella*) 636.
mimosicola (*Sphaerella*) 636.
miniato-flexuosus (*Coprinus*) 311.
miniatus (*Cantharellus*) 35.
miniina (*Didymosphaeria*) 676.
minima (*Dothidella*) 831.
minima (*Melanopsamma*) 659.
minima (*Pekiella*) 780.
minima (*Physalospora*) 581.
minima (*Pseudovalsa*) 741.
minor (*Hypoxylon*) 611.
minor (*Montagnites*) 95.
minor (*Pharcidia*) 649.
minus (*Platystomum*) 889.
minusculus (*Polyporus*) 114.
minuta (*Didymosphaeria*) 679.
minuta (*Phyllachora*) 832.
minuta (*Rosellinia*) 598.
minutellum (*Aecidiolum*) 309.
minutissima (*Exidia*) 207.
minutissimus (*Polystictus*) 129.
minutula (*Puccinia*) 276.
minutum (*Dimerium*) 537.
minutum (*Tylostoma*) 223.
minutus (*Phorcys*) 679.
minutus (*Pleurotus*) 26.
mirabilis (*Capnodiopsis*) 555.
mirabilis (*Læstadia*) 573.
miryense (*Aecidium*) 427.
miryensis (*Cordyceps*) 825.
miryensis (*Phyllachora*) 828.
missangoënsis (*Marasmius*) 42.
Mitchellii (*Ustilago*) 477.
mitrata (*Puccinia*) 326.
mkusiensis (*Uredo*) 440.
modica (*Puccinia*) 361.
Modiolæ (*Puccinia*) 352.
mogianensis (*Uromyces*) 259.
Moliniae (*Puccinia*) 467.
molle (*Corticium*) 172.
Möllerii (*Stilbohypoxyton*) 634.
Möllerii (*Zygorrhynchus*) 500.
Mölleriana (*Rosellinia*) 599.
Molluginis (*Gnomonia*) 664.
molluscus (*Merulius*) 145.
Monardella (*Puccinia*) 331.
monilifera (*Sphacelotheca*) 487.
monilifera (*Ustilago*) 487.
monilifera (*Dimerium*) 537.
moniliforme (*Lachnocladium*) 199.
monillipora (*Leptosphaeria*) 728.
Monninae (*Dimerium*) 537.
Monninae (*Phyllachora*) 829.
montanensis (*Hypocopa*) 605.
montanensis (*Sordaria*) 605.
montaniensis (*Sphacelotheca*) 487.
montaniensis (*Ustilago*) 478.
montaniensis (*Ustilago*) 487.
montanum (*Lophodermium*) 913.
montanum (*Synchytrium*) 513.
montellica (*Sphaerella*) 645.
monticola (*Guepinia*) 206.
mordax (*Eccilia*) 60.
Moreniana (*Puccinia*) 363.
moricola (*Aecidium*) 435.
moricola (*Uredo*) 451.
moriformis (*Crotonocarpia*) 764.
moriformis (*Cryphonectria*) 784.
moriformis (*Hypocneopsis*) 784.
Morinii (*Pilobolus*) 505.
Moroti (*Cæoma*) 399.
Morreniæ (*Puccinia*) 394.
Morthieri (*Melomastia*) 707.
Morthieri (*Signoella*) 707.
moschata (*Nectria*) 796.
Moschosmatis (*Aecidium*) 417.
mucilaginosis (*Mucor*) 496.
mucphila (*Fulminaria*) 512.
Mucunæ (*Didymella*) 654.
mugellanum (*Avulographum*) 895.
Mühlenbeckiæ (*Puccinia*) 394.
Mühlenbergiæ (*Puccinia*) 374.
Mühlenbergiæ (*Ustilago*) 478.
Mulgedii (*Puccinia*) 304.
Mulgedii (*Uromyces*) 244.
Mulgedii (*Uromyces*) 394.
Mülleri (*Podaxon*) 219.
multicaudata (*Pleurage*) 603.
multicaudata (*Sordaria*) 603.
multifida (*Thelephora*) 128.
multifidum (*Hydnum*) 128.
multiforme (*Hypoxylon*) 611.
multiformis (*Gloniopsis*) 911.
multiramis (*Cantharellus*) 34.
multisquamosa (*Amanita*) 2.
multipunctus (*Boletus*) 100.
muriculata (*Botryosphaeria*) 591.
murinus (*Hypochnus*) 187.
musashiensis (*Pomes*) 120.
musciicola (*Corticium*) 175.
muscigena (*Thelephora*) 191.
muscigena (*Cyphella*) 191.

- musicola (*Psathyra*) 90.
 mussooriense (*Lachnocladium*) 198.
 mussooriense (*Tylostoma*) 223.
 mussooriensis (*Cladoderris*) 163.
 mutabile (*Melanomma*) 733.
 Mutislae (*Phyllachora*) 836.
 myceliosa (*Clavaria*) 195.
 myceliosa (*Poria*) 134.
 Myosotidis (*Puccinia*) 387.
Myosuri-Eranthidis (*Peronospora*) 521.
 myosuroides (*Cordyceps*) 826.
 myriasca (*Anixia*) 530.
 myriensis (*Naucoria*) 73.
 myriensis (*Polyporus*) 107.
 Myristicae (*Perisporium*) 544.
 Myrrhis (*Puccinia*) 339.
 Myrtilli (*Wallrothiella*) 587.

 Nakanishikii (*Ustilago*) 474.
 nana (*Didymosphæria*) 679.
 nana (*Naucoria*) 73.
 nana (*Psalliota*) 85.
 nana (*Pterula*) 200.
 nanomitra (*Puccinia*) 274.
 nanus (*Agaricus*) 85.
 Napoleonis (*Laboulbenia*) 923.
 Nastanthi (*Puccinia*) 314.
 nauseosus (*Leptosporus*) 114.
 nauseosus (*Polyporus*) 114.
 nebulosa (*Venturia*) 653.
 necans (*Physalospora*) 536.
 necatrix (*Dematophora*) 595.
 necatrix (*Rosellinia*) 595.
 Needhami (*Gnomonia*) 666.
 Negeriana (*Asterina*) 877.
 Negeriana (*Meliola*) 554.
 Negeriana (*Parodiella*) 541.
 Negeriana (*Teichosporella*) 745.
 neglectus (*Cantharellus*) 34.
 neglectus (*Mucor*) 499.
 negrensis (*Puccinia*) 324.
 Negundinis (*Rosellinia*) 598.
 Nelsonii (*Gymnosporangium*) 271 et 462.
 Nelsonii (*Raetelia*) 409.
 Nemesiae (*Cronartium*) 461.
 nemoralis (*Puccinia*) 467.
 neocaledonicum (*Hypoxylon*) 610.
 neocaledonicum (*Stereum*) 164.
 neo-mexicana (*Ohleriella*) 735.
 neottizans (*Leptosphaeria*) 730.
 neottizans (*Verrucaria*) 730.
 nervincola (*Puccinia*) 312.
 ngamboensis (*Uredo*) 448.
 Niaouli (*Polyporus*) 109.
 Niaouli (*Xanthochrous*) 109.
 Nicholsoni (*Pleuroascus*) 532.
 Nicolai (*Leptosphaeria*) 700.
 Nicolai (*Metasphaeria*) 700.
 Nicotianae (*Peronospora*) 521.
 Nicotianae (*Uredo*) 440.
 nidicola (*Microascus*) 610.
 nidulans (*Uredo*) 445.
 nidus-avis (*Gymnosporangium*) 462.
 nigerrima (*Diaportha*) 571.
 nigra (*Circinella*) 501.
 nigrellus (*Leptoporus*) 116.
 nigrellus (*Polyporus*) 116.
 nigrescens (*Monoicomyces*) 915.
 nigrescens (*Puccinia*) 391.
 nigrescens (*Puccinia*) 391.
 nigricans (*Entyloma*) 56.
 nigricans (*Platyglea*) 204.
 nigrificans (*Zignoella*) 711.
 nigripes (*Polystiotus*) 126.
 nigritella (*Leptosphaerulina*) 746.
 nigritella (*Verrucaria*) 746.
 nigro-marginata (*Lepiota*) 4.
 nigro-papillata (*Pleonectria*) 814.
 nigro-velata (*Metasphaeria*) 702.
 Nishidanum (*Triphragmium*) 402.
 nitens (*Melanopsamma*) 659.
 nitida (*Poria*) 133.
 nitidum (*Platystomum*) 890.
 nitidus (*Arachnomycetes*) 532.
 nivalis (*Teichospora*) 761.
 nivea (*Clavaria*) 197.
 nivea (*Pterula*) 200.
 niveipes (*Tricholoma*) 9.
 niveum (*Corticium*) 170.
 niveus (*Marasmius*) 43.
 nobile (*Platystomum*) 890.
 nobilis (*Cortinarius*) 79.
 nocticolor (*Puccinia*) 387.
 nodospora (*Nolanea*) 59.
 Nolinæ (*Tolysporella*) 491.
 nonensis (*Puccinia*) 369.
 nootkatensis (*Uredo*) 452.
 norvegica (*Leptosphaeria*) 722.
 notata (*Laboulbenia*) 922.
 novo-zelandica (*Puccinia*) 392.
 noxia (*Plowrightia*) 845.
 nucicolum (*Hysterium*) 913.
 nucicolum (*Hysterographium*) 913.

Nucis-Avellanæ (Diaporthe) 673.
nuculoides (Platystomum) 889.
nudipes (Cortinerius) 79.
nummularia (Ustilago) 476.
nutans (Möllerella) 780.
nylkensis (Uromyces) 260.
nyssagena (Melanconiella) 691.

oaxacana (Puccinia) 272.
oaxacanus (Uromyces) 249.
obducens (Gibberidea) 739.
obducens (Puccinia) 285.
obducens (Tomentella) 183.
obesa (Puccinia) 326.
obliquata (Ceratosphæria) 716.
obliquata (Laboulbenia) 922.
obliquus (Cortinaris) 79.
obpatellata (Camillea) 620.
obscura (Puccinia) 467.
obsecta (Calonectria) 872.
obsecta (Trichopeltis) 872.
obtectum (Platystomum) 889.
obtegens (Puccinia) 290.
obtusa (Puccinia) 391.
obtusata (Puccinia) 467.
occidentale (Æcidium) 433.
occidentale (Lophiostoma) 889.
occidentale (Phragmidium) 399.
occidentalis (Sphacelotheca) 487.
occidentalis (Uromyces) 251.
occultata (Ceratosphæria) 715.
occultata (Rosellinia) 600.
occultum (Dimerium) 537.
ocellata (Metasphæria) 695.
ochraceo-flava (Uredo) 449.
ochraceo-niger (Marasmius) 45.
ochraceo-papillatus (Marasmius) 39.
ochraceo-hirta (Flammula) 68.
ochraceum (Hydnum) 150.
ochraceus (Cantharellus) 36.
ochraceus (Neurophyllum) 36.
ochroleuca (Lepiota) 5.
ochroleuca (Nectria) 789.
ochroleucum (Stereum) 165.
ochroleucum (Xyloporium) 239.
ochrostoma (Herpotrichia) 714.
Ocotæ (Phyllachora) 833.
oculatus (Lactarius) 29.
odoratum (Stereum) 166.
Odari (Puccinia) 322.
Edichiri (Laboulbenia) 922.
Edogonii (Lagenidium) 516.

Ænanthes (Enlyioma) 492.
Enotheræ (Æcidium) 370.
Enotheræ (Pleospora) 749.
Ærteliana (Sphærella) 636.
chiense (Hypoxylon) 612.
oidifera (Achlya) 518.
Oleæ (Ophiopeltis) 873.
oligocarpa (Nectria) 786.
oligospora (Leptosphæria) 730.
oligospora (Xenosphæria) 730.
oligotrichum (Dimerium) 537.
olivacea (Collybia) 15.
olivacea (Coniophorella) 183.
olivacea (Flammula) 70.
Olivacæ (Pharcidia) 649.
olivaceum (Dimerium) 539.
olivascens (Polystictus) 129.
Olyræ (Uredo) 456.
Oncidii (Uredo) 452.
Onopordi (Puccinia) 289.
Onesmodii (Æcidium) 418.
opegraphicola (Müllerella) 594.
Operculariæ (Puccinia) 317.
Ophelia (Uredo) 443.
ophioboloides (Leptosphæriopsis) 731.
Ophiopogonis (Uredo) 453.
Opizii (Æcidium) 371.
Opizii (Puccinia) 371, 467.
opposita (Lizoniella) 661.
opposita (Phyllachora) 833.
Opulastri (Metasphæria) 697.
opulenta (Asterella) 876.
opulenta (Asterina) 876.
opulenta (Didymosphæria) 682.
opulentus (Endococcus) 682.
orbiculata (Puccinia) 389.
orbiculatum (Dimerium) 537.
orbiculatum (Dimerosporium) 537.
Orchidearum-Phalaridis (Puccinia) 467.
Orchidis (Tieghemella) 504.
Orchidis-Repentis (Melampsora) 463.
oregonensis (Puccinia) 337.
orgaoensis (Diatrypella) 572.
orgaoensis (Dothidea) 853.
ornamentale (Peridermium) 409.
ornata (Calonectria) 811.
ornata (Nectria) 793.
Orni (Peltosphæria) 744.
ornithopoda (Clavaria) 196.
Orthocladæ (Balansiella) 822.
Orthocladæ (Claviceps) 822.
Osmundæ (Uredinopsis) 270.

- Osyridis (Dothidella)* 844.
Osyridis (Microcylus) 844.
Otiophoræ (Puccinia) 317.
Otopappi (Puccinia) 234.
Oudemansii (Puccinia) 386.
ovina (Lasiosphaeria) 714.
Oxalidis (Sphaerulina) 693.
Oxycedri (Gymnosporangium) 271.
Oxylobii (Lizoniella) 661.
Oxypodæ (Monoicomyces) 915.
Oxyriæ (Lestadia) 574.
oxyspora (Leptosphaeria) 769.
oxyspora (Metasphaeria) 705.
oxyspora (Zignoella) 710.
oxysporus (Ophiobolus) 769.

pachyphloea (Puccinia) 362.
pachysporum (Platystomum) 890.
pachystomum (Platystomum) 890.
Padi (Eutypella) 564.
Padi (Pucciniastrum) 470.
Pæderiæ (Uredo) 439.
Pallidureæ (Uredo) 438.
pallens (Puccinia) 394.
pallescens (Strobilomyces) 101.
pallida (Brigantiella) 889.
pallida (Didymeila) 655.
pallida (Laboulbenia) 922.
pallida (Puccinia) 330.
pallida (Puccinia) 394.
pallida (Tulasnella) 210.
pallide-sepiaceus (Marasmius) 42.
pallidifolius (Cortinarius) 80.
pallidipes (Amanita) 2.
pallidum (Æcidium) 436.
pallidus (Hygrophorus) 28.
palmicola (Penicillioptosis) 528.
paludosa (Leptosphaeria) 744.
paludosa (Puccinia) 467.
paludosus (Ophiobolus) 774.
paludosus (Hygrophorus) 27.
palustris (Russula) 32.
pamparum (Sphacelotheca) 486.
pamparum (Ustilago) 487.
Panacis (Uredo) 443.
Pandani (Asterina) 881.
Pandani (Leptosphaeria) 728.
Pandani (Stigmatea) 650.
pangerangense (Dimerium) 537.
Panici (Meliola) 550.
Panici (Uredo) 456.
Panici (Uredo) 456.

Panici-sulcati (Phyllachora) 840.
panieicola (Mycosphaerella) 646.
panicicola (Sphaerella) 646.
Paniculariæ (Puccinia) 378.
Papaveris (Leptosphaeria) 719.
papillifera (Ravenelia) 405.
papilloideo-septata (Dothidea) 852.
paradoxa (Galera) 75.
paraensis (Xylaria) 623.
paraguayana (Rosenscheldtia) 852.
paraguayensis (Rosellinia) 596.
paranensis (Herpomyces) 916.
paranensis (Uredo) 451.
paraphysata (Asterina) 878.
paraphysatum (Coleosporium) 398.
parasitica (Clitocybe) 14.
parasitica (Sphaerella) 646.
parasiticum (Dimerium) 538.
parasiticum (Dimerosporium) 538.
Paridis-Digraphidis (Puccinia) 467.
parietinaria (Didymosphaeria) 681.
parietinaria (Microthelia) 681.
Parkii (Dothidella) 843.
Parlatoriæ (Lisea) 806.
parmeliana (Trematosphaeriopsis) 736.
Parmula (Polystictus) 126.
Parmularia (Asterella) 832.
parmularioides (Lembosia) 900.
Parnassiae (Æcidium) 263.
Parnassiae (Puccinia) 353.
Parnassiae (Sphaerella) 638.
Parnassiae (Trichobasis) 263.
Parnassiae (Uredo) 263.
Parnassiae (Uromyces) 263.
Parthelii (Entoloma) 55.
parvula (Coprolepa) 608.
parvula (Hypocopra) 608.
parvula (Phyllachora) 834.
parvulus (Fomes) 123.
parvulus (Ganoderma) 123.
Pasadenæ (Uredo) 458.
pascuense (Hebeloma) 67.
paspalicola (Uredo) 453.
Paspali-notati (Sphacelotheca) 486.
Paspali-notati (Ustilago) 486.
Paspali-Thunbergii (Ustilago) 478.
Passifloræ (Æcidium) 426.
Passifloræ (Asterella) 877.
Passifloræ (Asterina) 877.
Passifloræ (Dimerium) 537.
Passifloræ (Sphaerella) 641.
passifloricolum (Æcidium) 426.

- Pastinacæ-Scirpi (Uromyces) 470.
 patagonicum (Æcidium) 419.
 Patellæ (Didymosphæria) 690.
 patens (Cyphella) 192.
 patens (Melogramma) 742.
 Patouillardii (Cerioporella) 707.
 Patouillardii (Tremella) 205.
 patrinæ (Æcidium) 413.
 pauciloculare (Phragmidium) 399.
 paulense (Dimerium) 538.
 paulense (Dimerosporium) 533.
 paulense (Septobasidium) 204.
 paulensis (Clitocybe) 14.
 paulensis (Fomes) 121.
 paulensis (Uredo) 457.
 pauperculus (Acampsomyces) 917.
 Pavoniæ (Uromyces) 251.
 paxilloides (Russula) 31.
 Peckianum (Entoloma) 56.
 Peckii (Æcidium) 370.
 Peckii (Clavaria) 196.
 Peckii (Hygrophorus) 27.
 Peckii (Puccinia) 370.
 Peckii (Puccinia) 467.
 Peckoltii (Uredo) 441.
 pecosense (Hypholoma) 88.
 pedemontana (Anthostomella) 595.
 pedemontana (Didymella) 655.
 pedemontanus (Boletus) 96.
 pedicellatus (Cantharellus) 36.
 pedicellatus (Dictyolus) 36.
 pedicularis (Charonectria) 732.
 peduncularis (Ophiobolus) 773.
 Pelargonii (Leptosphæria) 722.
 pellax (Didymosphæria) 682.
 pellax (Endococcus) 682.
 pellicula (Hypochnus) 189.
 pellitus (Ophiobolus) 771.
 pencaua (Puccinia) 285.
 Penicilliosis (Mülleroclavus) 631.
 pennata (Pterula) 200.
 Penningtonii (Polyporus) 102.
 Penningtonii (Puccinia) 387.
 Penniseti (Puccinia) 390.
 Penniseti-japonici (Ustilago) 478.
 pentagonospora (Eccilia) 60.
 Pentagynæ (Puccinia) 317.
 Pentastemonis (Gloniella) 904.
 Pentastemonis (Mycosphærella) 641.
 Pentastemonis (Sphærella) 641.
 Penzigii (Gloniopsis) 912.
 peperonioides (Xylaria) 622.
 Peplidis (Doassansia) 481.
 Periclyneni (Metasphæria) 701.
 Pericopsidis (Mycosphærella) 636.
 Pericopsidis (Sphærella) 636.
 peridermiospora (Puccinia) 385 et 467.
 peridermiospora (Uredo) 385.
 perigena (Didymella) 657.
 perigena (Sphæria) 657.
 Periplanetæ (Herpomycetes) 916.
 peristomata (Nectria) 787.
 Perkinsiæ (Æcidium) 413.
 Perkinsiæ (Lizoniella) 661.
 perplexa (Laboulbenia) 922.
 perplexans (Puccinia) 467.
 perplexans (Puccinia) 334.
 persistens (Puccinia) 467.
 persolinus (Ophiobolus) 771.
 Persooniæ (Mycosphærella) 639.
 Persooniæ (Sphærella) 639.
 peruviana (Puccinia) 332.
 Pestalozziæ (Pyrenophora) 759.
 Petasitidis (Metasphæria) 699.
 Petasitis (Coleosporium) 461.
 Petersii (Podocrea) 799.
 petiolaris (Leptosphæria) 726.
 petiolaris (Ophiobolus) 772.
 petiolicola (Gnômonia) 666.
 petiolicola (Seynesia) 866.
 petiolorum (Didymosphæria) 678.
 Petreæ (Metasphæria) 699.
 Petroselini (Puccinia) 340.
 Petroselini (Uredo) 340.
 Peucedani-parisiensis (Puccinia) 393.
 pexatum (Hydnum) 151.
 pezizoidea (Guepinia) 206.
 pezizoidea (Nummularia) 618.
 pezizoidea (Podocrea) 799.
 pezizoidea (Tubercularia) 165.
 Phaceliæ (Puccinia) 333.
 Phalaridis (Metasphæria) 705.
 Phalaridis (Puccinia) 467.
 Phaseoli (Physalospora) 580.
 Phellopteri (Puccinia) 345.
 philosoproides (Sordaria) 607.
 Philodendri (Lembosia) 901.
 Phlei-pratensis (Puccinia) 467.
 phlyctopus (Puccinia) 391.
 Phœnicis (Graphiola) 493.
 Phragmitis (Puccinia) 463.
 phrygica (Ustilago) 478.
 phyllachoroidea (Tremella) 205.
 phyllachoroides (Uromyces) 262.

- phyllanthophila (Phyllachora) 834.
 phyllodiorum (Massarinula) 658.
Phillyrea (*Æcidium*) 263.
Phillyrea (*Uredo*) 268.
Phillyrea (*Zaghouania*) 268.
 phymatospora (Puccinia) 340.
physciicola (*Mycoporium*) 682.
physciicola (*Didymosphaeria*) 682.
 Phyteumatis (*Coleosporium*) 461.
 Phyteumatis (*Leptosphaeria*) 726.
picea (*Nolanea*) 72.
 Piceae (*Zignoella*) 710.
 piceina (*Clitocybe*) 11.
 Pickeli (*Calospora*) 717.
 Pieridis-strigosae (Puccinia) 305.
 Picrosiae (Puccinia) 298.
 Pieridis (*Exohasidium*) 190.
 pilifera (*Ceratostomella*) 592.
piliferum (*Ceratostoma*) 592.
 pilosa (*Teichospora*) 761.
 pilosella (*Nectria*) 792.
 piluliformis (*Thecaphora*) 488.
Pimpinella-Eryngii (Puccinia) 393.
 Pinaropappi (Puccinia) 294.
 Pinastri (*Diaporthe*) 670.
Pinastri (*Hydnium*) 145.
 Pini (*Peridermium*) 464.
 pinicola (*Tulasnella*) 210.
 pinitorqua (*Melampsora*) 463.
 piperata (*Glomerella*) 573.
 pipericola (*Nectria*) 795.
 Piperli (*Ustilago*) 473.
 Piperis (*Meliola*) 551.
 Piperis (*Stigmataea*) 650.
 Piptadeniae (*Dothidella*) 847.
 Piptocarpae (*Gaillardella*) 686.
 Piri (*Hysterographium*) 912.
 Piri (*Melanconia*) 691.
 piriforme (*Lycoperdon*) 233.
 piriforme (*Rhynchostoma*) 689.
 pirina (*Cryptovalsa*) 567.
 pirina (*Eutypella*) 564.
 Pirolae (*Chrysomyxa*) 460.
 pisana (*Hypocopra*) 605.
pisciadora (*Nolanea*) 72.
 Pisi (*Uromyces*) 470.
 Pittieriana (Puccinia) 324.
 Pittierianus (*Uromyces*) 255.
 Pittospori (*Physalospora*) 382.
 Placenta (*Poria*) 132.
 Planetis (*Laboulbenia*) 922.
 planiuscula (*Leptosphaeria*) 726.
 Platani (*Microthyrium*) 864.
 platense (*Thyridium*) 767.
 platensis (*Cystopus*) 519.
 platensis (*Dothidella*) 851.
 platensis (*Hypocrea*) 801.
 platensis (*Marasmius*) 39.
 platensis (*Mucor*) 497.
 platensis (*Odontia*) 157.
 platensis (*Phaeosolenia*) 147.
 platensis (*Poria*) 131.
 platensis (*Laboulbenia*) 922.
 plectronicola (*Æcidium*) 413.
 plectrospora (*Leptosphaeria*) 723.
 pleurostomum (*Melanomma*) 733.
 plorans (*Polyperus*) 110.
plorans (*Xanthochrous*) 110.
 Pluchae (*Uredo*) 436.
 plumbea (*Kneiffia*) 181.
 plumeriicola (*Uredo*) 442.
 Plumierae (*Coleosporium*) 398.
 pluriseptata (*Metasphaeria*) 707.
pluriseptata (*Verrucaria*) 707.
 Poae (*Uromyces*) 471.
 Poarum (Puccinia) 468.
 poculatum (*Tylostoma*) 231.
 podlachica (*Sabacina*) 208.
 podlachicus (*Polyporus*) 113.
 Podospermi (Puccinia) 309.
 Polliniae (Puccinia) 468.
 polonensis (*Kneiffia*) 177.
 Polygonati (*Pleospora*) 755.
 Polygoni (*Peronospora*) 522.
 Polygoni-amphibii (Puccinia) 394 et 468.
 Polygoni-cuspidati (*Æcidium*) 434.
 Polygoni-vivipari (Puccinia) 468.
 polygonium (*Corticium*) 172.
 polymorpha (*Pleospora*) 757.
 polymorpha (*Xylaria*) 622.
 Polypodii (*Hyalospora*) 268.
Polypodii (*Uredo*) 268.
 Polypodii-Dryopteridis (*Hyalospora*) 268.
 polyphragmoides (*Pyrenophora*) 759.
 polyporoides (*Poronia*) 620.
polyspora (*Delitschia*) 688.
 polyspora (*Delitschiella*) 688.
 Polystichi (*Metasphaeria*) 705.
 Pooreana (*Entomophthora*) 511.
poponalis (*Agaricus*) 13.
 poponalis (*Clitocybe*) 13.
 Popowiae (*Æcidium*) 431.
 Populi (*Amphisphaeria*) 635.

- Populi (Platystomum) 890.
Populi (Stickeria) 762.
 Populi (Teichospora) 762.
 populina (Melanconis) 667.
populina (Trametes) 138.
 populinum (Hydnum) 151.
populinus (Polyporus) 138.
 porioidea (Hypocrea) 802.
 poronioidea (Podocrea) 799.
 porosum (Æcidium) 427.
porphyrogenita (Puccinia) 302.
 porphyrogenus (Ophiobolus) 770.
 Porteri (Puccinia) 391.
portoricensis (Hexagona) 141.
 portoricensis (Favolus) 141.
 portoricensis (Ravenelia) 405.
 Potentillæ (Zignoella) 709.
 Potentillæ-canadensis (Phragmidium) 400.
 præclara (Puccinia) 351.
 præmorsa (Puccinia) 297.
 prærimosus (Fomes) 117.
prærimosus (Pyropolyporus) 117.
 præstabilis (Didymella) 656.
 Premnæ (Puccinia) 332.
 Prenanthis (Læstadia) 575.
 Prenanthis (Puccinia) 306.
 Prenanthis-purpureæ (Puccinia) 306.
 Prenanthis-racemosæ (Puccinia) 307.
 Pringhshelmiana (Puccinia) 468.
 Pritzeliana (Cucurbitaria) 765.
 Pritzeliana (Paranectria) 812.
 Pritzeliana (Puccinia) 350.
 Pritzellii (Cladoderris) 163.
 Pritzellii (Dielsiella) 902.
 procera (Xylaria) 632.
 producta (Laboulbenia) 922.
 proliferans (Cordyceps) 825.
 proliferans (Laboulbenia) 923.
 prolificus (Mucor) 493.
 proluxa (Laboulbenia) 919.
prominens (Guignardia) 575.
 prominens (Læstadia) 575.
 prorumpens (Zignoella) 710.
 provinciale (Sorosporium) 485.
 pruinatum (Corticium) 171.
 Prunastri (Fenestella) 766.
Prunella (Uromyces) 263.
 Pruni (Botryosphaeria) 591.
 Pruni (Sphaerulina) 693.
 Pruni (Uredo) 449.
 Pruni-Maximowiczii (Uredo) 449.
 psalliotoides (Leptota) 4.
 psathyroidea (Stropharia) 86.
 Pseudacori (Didymosphaeria) 679.
 Pseudacori (Ophiobolus) 773.
 Pseudacori (Pleospora) 755.
 Pseudarthriæ (Uromyces) 253.
 pseudobufonia (Clypeosphaeria) 732.
 pseudocalopus (Marasmius) 42.
 pseudocarpa (Didymosphaeria) 682.
pseudocarpus (Endococcus) 682.
 pseudocephæforme (Lycoperdon) 232.
 pseudocolumnare (Æcidium) 436.
 pseudocomma (Gloniella) 904.
 pseudodomesticus (Coprinus) 91.
 pseudolacrymans (Merulius) 145.
 pseudolimbatus (Geaster) 227.
 pseudopusillum (Lycoperdon) 232.
 pseudoradicans (Lycoperdon) 231.
 pseudosplachnoides (Marasmius) 88.
pseudostorea (Agaricus) 89.
 pseudostorea (Hypholoma) 89.
 pseudostriatus (Geaster) 227.
 pseudotrichia (Megalonectria) 815.
 pseudoumbrium (Lycoperdon) 231.
 pseudovillosa (Cyphella) 191.
 Psilocaryæ (Cintractia) 481.
Psilocaryæ (Ustilago) 481.
 psilogrammum (Platystomum) 890.
 Psilostomatis (Dimerium) 537.
 Psophocarpus (Uromyces) 252.
 Psychotriæ (Æcidium) 415.
 Psychotriæ (Crepidotus) 77.
 Psychotriæ (Meliola) 549.
 Psychotriæ (Trichopeltis) 871.
 Psychotriæ (Uromyces) 246.
 Ptarmicæ (Puccinia) 278.
 pteridiicola (Phyllachora) 840.
 Pteridis (Schizothyrium) 803.
 Pteridis (Scleroderma) 236.
 Pteroclaenæ (Uromyces) 248.
 Pterolobii (Dothidella) 847.
 Puiggarianus (Polyporus) 103.
 pulchella (Hypocrea) 802.
 pulchella (Torrendia) 241.
 pulchellus (Henningsomyces) 659.
 pulcherrimum (Cœoma) 459.
 pulerifolius (Cantharellus) 35.
 pullus (Pilobolus) 506.
Pulmonaria (Æcidium) 282.
pulposa (Urophlyctis) 483.
 Pulsatillæ (Coleosporium) 461.
 Pulsatillæ (Puccinia) 360.
Pulsatilla (Puccinia) 359.

- pulveracea* (*Lepiota*) 5.
pulveracea (*Lepiota*) 6.
pulverulenta (*Russula*) 34.
pulviscula (*Trichosphaeria*) 589.
pumila (*Clitocybe*) 13.
pumila (*Laccaria*) 13.
punctata (*Puccinia*) 393.
punctatum (*Aecidiolum*) 443.
punctifolius (*Cortinarius*) 81.
punctoidea (*Puccinia*) 274.
punctum (*Spolverinia*) 577.
purpurascens (*Platystomum*) 890.
purpurea (*Kneiffia*) 180.
purpurea (*Poria*) 136.
purpurea (*Puccinia*) 394.
purpurea (*Thelephora*) 180.
purpureo-albus (*Polystictus*) 128.
purpureo-conica (*Lepiota*) 8.
purpureo-lilacina (*Russula*) 33.
Purpusiorum (*Aecidium*) 428.
pusilla (*Flammula*) 70.
pusilla (*Gnomonia*) 664.
pusilla (*Mortierella*) 507.
pusilla (*Phyllachora*) 832.
pusillima (*Cœlosphaeria*) 560.
pusillum (*Polysaccum*) 237.
pusillum (*Polystigma*) 780.
pusiola (*Thelephora*) 162.
pusillus (*Agaricus*) 85.
pusillus (*Hygrophorus*) 28.
pusillus (*Polystictus*) 126.
Puttemansii (*Auerswaldia*) 842.
Puttemansii (*Marasmius*) 45.
Puttemansii (*Mycosphaerella*) 640.
Puttemansii (*Polyporus*) 105.
Puttemansii (*Puccinia*) 378.
Puttemansii (*Sphaerella*) 640.
Puttemansii (*Uredo*) 449.
pycnostigma (*Leptosphaeria*) 731.
pycnostigma (*Verrucaria*) 731.
Pyrethri (*Puccinia*) 278.
Pyrrhopappi (*Puccinia*) 294.

quadrinucleatum (*Lophiostoma*) 888.
Queenslandiae (*Rosellinia*) 599.
Queenslandiae (*Coniochaeta*) 599.
Queletii (*Corticium*) 174.
Queletii (*Craterellus*) 160.
quercicola (*Auerswaldia*) 843.
quercicola (*Coccodiscus*) 860.
quercina (*Auerswaldia*) 843.
quercina (*Cryptospora*) 776.

quercina (*Dichæna*) 894.
quercina (*Metasphaeria*) 702.
quercina (*Lembosia*) 895.
quercinum (*Aulographum*) 895.
quercinum (*Lophiostoma*) 888.
quercinum (*Lophiostoma*) 888.
quercinum (*Stereum*) 166.
quercinus (*Hypochnus*) 204.
Quercus (*Didymella*) 654.
Quercus (*Melanconis*) 667.
Quercus (*Pistillaria*) 202.
Quercus (*Trematosphaeria*) 735.
Quercus (*Yoshinagata*) 860.
Quercus (*Cronartium*) 461.
quindecimseptata (*Scolecopeltis*) 875.

Rabenhorstii (*Cryptovalsa*) 567.
Raciborskii (*Hypocrella*) 818.
radians (*Cortinarius*) 78.
radians (*Spinalia*) 510.
radiata (*Asteridiella*) 885.
radiata (*Lenzites*) 52.
radicata (*Stropharia*) 88.
radicatum (*Tricholoma*) 9.
radicosus (*Lentinus*) 48.
radiosum (*Corticium*) 172.
radula (*Poria*) 132.
Ramannianus (*Mucor*) 499.
ramealis (*Acanthostigma*) 775.
ramealis (*Ophiocochaeta*) 775.
ramicola (*Venturia*) 651.
ramorum (*Platystomum*) 889.
ramosus (*Polyporus*) 106.
ramulicola (*Aecidium*) 428.
ramulicola (*Uredo*) 449.
ramuligera (*Xylaria*) 632.
Randia (*Aecidium*) 436.
Ranunculacearum (*Aecidium*) 439.
rariopila (*Nectria*) 791.
recedens (*Aecidium*) 410.
recedens (*Puccinia*) 276.
rectangularis (*Antennaria*) 559.
regale (*Hypoxylon*) 610.
regia (*Gloniopsis*) 911.
Regis (*Panæolus*) 93.
regularis (*Clitocybe*) 12.
Rehmiana (*Cesatiella*) 808.
Rehmii (*Apiosporium*) 545.
Rehmii (*Perisporium*) 545.
Rehsteineri (*Hymenogaster*) 239.
Reiliana (*Conractia*) 487.
Reiliana (*Sphacelotheca*) 487.

- Reiliana* (*Ustilago*) 487.
reniformis (*Marasmius*) 46.
reniformis (*Xylaria*) 624.
repens (*Actinomucor*) 499.
repens (*Glomerula*) 510.
residua (*Ustilago*) 475.
retecta (*Puccinia*) 360.
reticulata (*Galera*) 75.
reticulatum (*Æcidium*) 259.
reticulatus (*Marasmius*) 42.
reticulatus (*Mucor*) 497.
reticulatus (*Uromyces*) 259.
retifera (*Puccinia*) 338.
retirugis (*Pholiota*) 64.
retorta (*Saprolegnia*) 518.
Reukaufii (*Doassansia*) 481.
rhacodioides (*Leptota*) 3.
Rhagadioli (*Æcidium*) 307.
Rhagadioli (*Puccinia*) 307.
Rhamnii (*Ophiobolus*) 770.
Rhanterii (*Pleospora*) 751.
Rhapontici (*Puccinia*) 285.
rheades (*Polyporus*) 111.
Rhexoblepharæ (*Pharcidia*) 648.
Rhexoblepharæ (*Verrucariæ*) 648.
Rhinanthi (*Leptosphaeria*) 723.
rhizomorphaidea (*Xylaria*) 631.
rhodocylloides (*Eccilia*) 60.
Rhododendri (*Chrysomyxa*) 460.
Rhododendri (*Diaporthæ*) 672.
Rhododendri (*Gnomonia*) 666.
Rhododendri (*Melanomma*) 733.
rhodospora (*Nolanea*) 60.
rhodosporus (*Agaricus*) 60.
rhoïna (*Curreya*) 858.
rhoïna (*Diaporthæ*) 672.
rhoïna (*Gnomonia*) 665.
rhoïna (*Strikeria*) 763.
rhoïna (*Teichospora*) 763.
Rhois (*Didymosphaeria*) 677.
rhombispora (*Stropharia*) 87.
rhopalasca (*Acerbia*) 768.
rhopographoides (*Leptosphaeria*) 721.
rhyparella (*Pharcidia*) 647.
rhyparella (*Verrucaria*) 647.
Rhyssostelmatis (*Puccinia*) 335.
ribesia (*Diaporthæ*) 668.
ribesia (*Pleospora*) 747.
ribesia (*Pseudovalsa*) 740.
ribesicola (*Æcidium*) 429.
Ribesii-Auritæ (*Melampsora*) 463.
Ribesii-Caricis (*Puccinula*) 468.
Ribesii-Pseudocyperi (*Puccinula*) 468.
Ribesii-Purpureæ (*Melampsora*) 463.
Ribesii-Viminalis (*Melampsora*) 468.
ribicola (*Cronartium*) 461.
Ribis (*Gibberidea*) 739.
Ribis (*Othiella*) 662.
Ribis (*Puccinia*) 392.
Ribis-alpini (*Pleospora*) 748.
Ribis-japonici (*Puccinia*) 351.
Ribis-nigri-Acutæ (*Puccinia*) 468.
Richardii (*Dimerium*) 537.
Richardsonii (*Hypocrea*) 165.
Richardsonii (*Puccinia*) 333.
Richenii (*Orbicula*) 533.
Ricini (*Didymella*) 654.
Rickerianus (*Uromyces*) 257.
Riekii (*Mucronella*) 159.
Riekii (*Nectria*) 796.
Riddellii (*Gymnoconia*) 395.
Ridleyi (*Boletus*) 96.
rigniacensis (*Gnomonia*) 666.
rimosa (*Diatrypella*) 572.
rimosa (*Psalliota*) 83.
rimosum (*Tricholoma*) 10.
rimosus (*Agaricus*) 83.
rionegrense (*Æcidium*) 430.
riparia (*Puccinia*) 368.
Ritro (*Platystomum*) 890.
rivalis (*Leptosphaeria*) 729.
Rivana (*Leptosphaeria*) 730.
rivulorum (*Arthopyrenia*) 648.
rivulorum (*Pharcidia*) 648.
Robinia (*Fomes*) 117.
Robinia (*Pyropolyporus*) 117.
Rodwayi (*Secotium*) 218.
rostelliformis (*Puccinia*) 327.
Rollinæ (*Micropeltis*) 868.
Romagnolina (*Puccinia*) 874.
romana (*Chilonectria*) 779.
Rompelli (*Michenera*) 217.
Romuleæ (*Sphaerella*) 644.
Rosarum (*Cryptovalsa*) 567.
rosea (*Tremella*) 205.
roseipes (*Pluteus*) 54.
rosella (*Nectria*) 795.
roseo-lilacina (*Poria*) 136.
roseo-tinctum (*Lophiostoma*) 888.
rosicola (*Guignardia*) 574.
rosicola (*Læstadia*) 574.
Rossiana (*Puccinia*) 394.
rostrata (*Coprolepa*) 608.
rostrata (*Hypocopra*) 608.

- rostrata (Sporophlyctis) 518.
 rostrata (Torruhiella) 816.
 rostrata (Xylaria) 633.
 Rostrupii (Boletus) 97.
 Rostrupii (Leptosphaeria) 721.
 Rostrupii (Melampsora) 463.
 Rottboelliana (Puccinia) 390.
 Rottboelliae (Uredo) 457.
 Rottboelliae (Uredo) 262.
 Rottboelliae (Uromyces) 262.
 rotundata (Mazzantia) 828.
 rotundata (Tilletia) 490.
 rotundata (Ustilago) 490.
 Roumeguerii (Kneiffia) 180.
 Rousseilii (Hysterographium) 912.
 Rubi (Melampsora) 781.
 Rubi (Uromyces) 255.
 rubicola (Glomerella) 573.
 rubicola (Meliola) 551.
 rubicola (Puccinia) 318.
 rubicola (Sphaerella) 637.
 rubicola (Venturia) 651.
 rubicunda (Puccinia) 388.
 rubidula (Mycena) 20.
 rubiginosa (Hypocrella) 818.
 rubilivora (Puccinia) 318.
 ruborum (Platystomum) 890.
 rubricans (Puccinia) 350.
 rubritinctus (Fomes) 120.
 rubro-canum (Corticium) 168.
 rubro-marginata (Mycena) 20.
 rubro-pallens (Corticium) 168.
 rubro-tincta (Russula) 33.
 rubrum (Eurotium) 528.
 Rübsaameni (Puccinia) 327.
 Rübsaameni (Urophlyctis) 515.
 rude (Platystomum) 890.
 rudis (Nidularia) 216.
 Ruelliae-Bourgæi (Puccinia) 320.
 rufa (Hypocrea) 800.
 rufidula (Leptia) 8.
 rufipes (Agaricus) 26.
 rufipes (Pleurotus) 26.
 rufipes (Puccinia) 377.
 rufitincta (Poria) 135.
 rufo-alutacea (Hypocrea) 802.
 rufo-marginata (Thelephora) 165.
 rufo-violascens (Asterella) 882.
 rufo-violascens (Asterina) 882.
 rufum (Stereum) 165.
 rugispora (Nidula) 215.
 rugosiceps (Collybia) 15.
 rugosoides (Mycena) 19.
 rugulosa (Puccinia) 393.
 rugulosa (Russula) 31.
 Rumicis (Ustilago) 473.
 rupestris (Puccinia) 468.
 Rutæ (Pleospora) 749.
 rutilescens (Agaricus) 82.
 sabalicola (Hysterostomella) 892.
 sabalina (Zignoella) 711.
 Sabinæ (Gymnosporangium) 462.
 Sabinæ (Sphaerella) 642.
 Saccardoanum (Dimerium) 539.
 Saccardoi (Meliola) 546.
 Saccardoi (Mucor) 500.
 Saccardoi (Proaspidia) 500.
 Saccardoi (Valsella) 567.
 Sacchari (Phyllachora) 838.
 Sacchari (Sphaerulina) 694.
 saharanpurensis (Polyporus) 108.
 saharanpurensis (Tubaria) 76.
 sajanense (Hydnum) 150.
 sajanensis (Sclerodon) 150.
 sakawensis (Meliola) 548.
 sakawensis (Uromyces) 245.
 salicella (Sphaerella) 643.
 salicicola (Zignoella) 710.
 salicina (Sphaerella) 643.
 salicina (Valsa) 564.
 Salicis (Enchytraea) 560.
 Salicis (Metasphaeria) 702.
 Salicis (Pleospora) 753.
 Salicum (Platystomum) 891.
 salinum (Æcidium) 422.
 saloisensis (Poria) 134.
 Salsolæ (Pyrenospora) 759.
 Salviæ (Leptosphaeria) 725.
 Salviæ (Puccinia) 327.
 Salviæ-glutinosa (Puccinia) 327.
 Salviæ-lanceolata (Puccinia) 391.
 Salviæ-Stipæ (Puccinia) 463.
 Sambuci (Charoneotria) 782.
 Sambuci (Ophiobolus) 771.
 Sambuci (Pleospora) 752.
 Sambuci (Puccinia) 468.
 Sambuci (Thyridaria) 741.
 sambucina (Didymella) 654.
 sambucina (Metasphaeria) 701.
 sambense (Lycoperdon) 233.
 sanguinea (Kneiffia) 180.
 anguineas (Laschia) 144.
 sanguinea (Metasphaeria) 699.

- sanguinea (Nectria) 787.
 sanguineus (Ithyphallus) 212.
sanguineus (Phallus) 212.
 sanguinolenta (Poria) 135.
 Santolinæ (Platystomum) 890.
 sarcinatum (Æcidium) 422.
 sarcopoides (Asterophylctis) 517.
 sardoa (Glioniella) 904.
 sardoa (Valsa) 562.
 sardoa (Zignoella) 710.
 sardous (Boletus) 95.
 sarmenticola (Leptosphaeria) 719.
 Sarothamni (Kalmusia) 742.
 Sarothamni (Lophiostoma) 888.
 Sarothamni (Ophiobolus) 770.
 Sarothamni (Pleospora) 749.
 Satyrii (Puccinia) 363.
 Saururi (Uromyces) 257.
 Sauassureæ (Uromyces) 244.
 Saxifragæ (Læstadia) 575.
Saxifragæ (Melampsora) 264.
 Saxifragæ (Peronospora) 522.
 scabra (Absidia) 504.
 scabripes (Boletus) 96.
 scalare (Stereum) 164.
 Scheffleri (Dimerium) 540.
Scheffleri (Dimerosporium) 540.
 Scheffleri (Micropeltis) 869.
 Scheremetieffiana (Eriosphaeria) 660.
 schizans (Rhizopus) 502.
 Schizolobii (Phyllachora) 830.
 schizolobicola (Phyllachora) 829.
 Schmidtiana (Micropeltis) 870.
 Schmidtiana (Puccinia) 468.
 Schmidtii (Polystictus) 128.
 Schœleriana (Puccinia) 468.
 Schœnoprasi (Sphaerella) 644.
 Scholzii (Uredo) 441.
 Schrœteriana (Puccinia) 468.
 Schweinfurthii (Entyloma) 483.
 Schweinfurthii (Puccinia) 392.
 Schweinfurthii (Ravenelia) 406.
Schweinfurthii (Rostrupia) 392.
Schweinitzii (Thelephora) 208.
 Schweinitzii (Tremellodendron) 208.
Scilla (Puccinia) 394.
 Scirpi (Metasphaeria) 704.
 Scirpi (Phyllachora) 837.
 Scirpi (Puccinia) 468.
 Scirpi (Uromyces) 422, 471.
scirpina (Athelia) 175.
scirpinum (Corticium) 175.
 sclericola (Dothidella) 850.
 Sclerolobii (Lembosia) 899.
 Scolochloæ (Ustilago) 478.
 Scolymi (Puccinia) 287.
 Scolymi (Ustilago) 472.
 scoparia (Peroneutypella) 570.
 scoparioides (Eutypella) 566.
 scopigena (Uredo) 487.
 scoriadea (Antennaria) 560.
 Scorpii (Platystomum) 890.
 Scorzonæræ (Puccinia) 369.
 scorzonericola (Puccinia) 310.
 scripta (Glioniella) 904.
 scruposa (Kretzschmaria) 614.
 scutellatus (Polyporus) 105.
scutula (Dothidella) 844.
 scutula (Microcylus) 844.
 Sebilli (Thyridaria) 741.
 secalina (Nectria) 790.
 secalina (Phomatospora) 578.
 secedens (Dimerium) 537.
 sechalinensis (Diaporthe) 673.
 Securidacæ (Phyllachora) 829.
 sejuncta (Puccinia) 307.
selenospora (Cesatiella) 809.
selenospora (Cladosphaeria) 809.
selenospora (Ophiomassaria) 809.
 Selinæ (Ceraiomycetes) 918.
 semianus (Coprinus) 90.
 seminuda (Hypocopa) 606.
seminuda (Sordaria) 606.
 Sempervivi (Dilophia) 767.
 Senecionis (Coleosporium) 461.
 Senecionis (Metasphaeria) 708.
 Senecionis (Pleospora) 751.
 Senecionis (Puccinia) 277.
senilis (Clitocybe) 13.
 seplum (Trametes) 136.
 septata (Uncinula) 524.
 septentrionalis (Puccinia) 468.
 septicoides (Pleurotus) 26.
 septobasidioides (Hymenochæta) 167.
 sepulcralis (Hypomyces) 805.
 sepulta (Pleospora) 754.
 Sequoiæ (Hypodermopsis) 909.
 serenula (Lepiota) 4.
 serialis (Kneiffia) 179.
 serialis (Phyllachora) 838.
seriata (Guignardia) 576.
 seriata (Læstadia) 576.
 seriata (Otthiella) 662.
 seriata (Puccinia) 278.

- sericea* (*Acia*) 151.
sericeum (*Hydnum*) 151.
sericeum (*Hypholoma*) 89.
sericipes (*Hebeloma*) 66.
Serjaniæ (*Dothidella*) 847.
Serjaniæ (*Physalospora*) 579.
Serratulæ-Caricis (*Puccinia*) 468.
Serratulæ-oligocephalæ (*Puccinia*) 289.
Sesleriæ (*Puccinia*) 468.
sessile (*Ganoderma*) 122.
sessile (*Lophiostoma*) 888.
sessilis (*Fomes*) 122.
sessilis (*Puccinia*) 468.
Setariæ (*Dothidella*) 851.
Setariæ-italicæ (*Sclerospora*) 520.
Setariæ-italicæ (*Uredo*) 457.
seticeps (*Leptonia*) 58.
setigera (*Kneiffia*) 176.
setosa (*Antennaria*) 557.
setosa (*Limacinia*) 557.
setulosa (*Parodiella*) 542.
setulosum (*Hapalophragmium*) 408.
setulosum (*Triphragmium*) 403.
Seurati (*Lycoperdon*) 223.
sexspora (*Zukalia*) 543.
Seymouriana (*Puccinia*) 385.
Seymouriana (*Sphacelotheca*) 486.
Sheariana (*Eutypella*) 566.
Shenoi (*Polystictus*) 190.
Shiraianum (*Exobasidium*) 190.
Sibbaldia (*Linospora*) 775.
sibirica (*Lenzites*) 52.
sibiricum (*Aplosporium*) 531.
siculus (*Ceratomyces*) 140.
Sieversia (*Puccinia*) 353.
Sii-Falcaria (*Puccinia*) 393.
Sii-latifolii (*Uromyces*) 248.
Silents (*Mycospharella*) 639.
Silenis (*Sphærella*) 639.
Sileris (*Puccinia*) 340.
siliquæ (*Ravenelia*) 403.
Silphii (*Metasphæria*) 699.
silvana (*Wallrothiella*) 588.
silvatica (*Puccinia*) 469.
silvestris (*Leptosphaeria*) 720.
silvestris (*Pholota*) 63.
Simabæ-Cedronis (*Phyllachora*) 894.
simile (*Chaetomium*) 601.
similis (*Pleoravenelia*) 407.
similis (*Pleurotus*) 24.
similis (*Puccinia*) 275.
similis (*Xylaria*) 626.
simillima (*Puccinia*) 385. et 469.
simplex (*Gastrosporium*) 243.
simplex (*Parasitella*) 501.
simplex (*Paxillus*) 81.
simplex (*Puccinia*) 377 et 469.
simplex (*Puccinia*) 392.
simplicior (*Diaporthe*) 671.
simulans (*Coriolus*) 129.
sinensis (*Rhizopus*) 503.
singulare (*Endophyllum*) 263.
singularis (*Lizoniella*) 662.
sinuosa (*Poria*) 131.
Sisyrinchii (*Pleospora*) 755.
sithensis (*Hypochnus*) 189.
Sloanea (*Hypocrella*) 817.
Smilacearum-Digraphidis (*Puccinia*) 469.
smilacina (*Sphærella*) 644.
Smilacis-China (*Puccinia*) 367.
socia (*Phyllachora*) 833.
socialis (*Pleospora*) 755.
socius (*Saccardomyces*) 530.
Socotræ (*Uredo*) 448.
Sojæ (*Uredo*) 446.
Solani (*Erysiphæ*) 527.
solanicola (*Asterina*) 879.
solenoides (*Ræstelia*) 409.
Solidaginis (*Æcidium*) 378.
Solidaginis (*Sorosporium*) 488.
Solidaginis-Caricis (*Puccinia*) 469.
solidipes (*Agaricus*) 84.
solitaria (*Puccinia*) 392.
Solorinæ (*Leptosphaeria*) 730.
Sonchi (*Coleosporium*) 461.
sonchina (*Puccinia*) 308.
Sophoræ (*Æcidium*) 428.
Sophoræ-flavescentis (*Uromyces*) 254.
Sophoræ-japonicæ (*Uromyces*) 254.
Sorbi (*Leptosphaeria*) 721.
Sorbi (*Ochrospora*) 464.
sordaria (*Rosellinia*) 599.
sordescens (*Diplonema*) 183.
sordidum (*Hydnum*) 145.
Sorghi (*Pleospora*) 757.
Sorghi (*Sphacelotheca*) 487.
Sorghi (*Ustilago*) 387.
sorghicola (*Ustilago*) 479.
Sorghi-halepensis (*Uredo*) 457.
Sorghi-vulgaris (*Cintractia*) 487.
spadiceus (*Pleurotus*) 23.
sparassoides (*Craterellus*) 128.
sparassoides (*Thelephora*) 162.
Sparaxidis (*Uromyces*) 260.

- sparganioides* (*Puccinia*) 385.
Sparganophori (*Uredo*) 454.
sparsa (*Leptosphaeria*) 729.
sparsa (*Omphalia*) 22.
Spartii (*Platystomum*) 889.
Spartii (*Sphaerulina*) 693.
spathulatum (*Radulum*) 153.
spathulatus (*Irpea*) 153.
spathulatus (*Panus*) 51.
speciosus (*Mucor*) 495.
spectabile (*Dimerium*) 537.
spectabilis (*Laboulbenia*) 919.
spectabilis (*Puccinia*) 291.
spectabilis (*Rinia*) 592.
Spegazzinii (*Tricholoma*) 11.
Speschnewii (*Venturia*) 652.
sphaerocarpus (*Uromyces*) 253.
sphaeroidea (*Podocrea*) 799.
sphaeroidea (*Puccinia*) 348.
sphaeroides (*Pyrenula*) 711.
sphaeroides (*Verrucaria*) 711.
sphaeroides (*Zignoella*) 711.
sphaerospora (*Mycena*) 21.
sphaerospora (*Puccinia*) 334.
sphaerosporus (*Agaricus*) 82.
sphaerosporus (*Clitopilus*) 58.
Sphagni (*Lizoniella*) 681.
sphagnophila (*Eccilia*) 60.
sphagnophila (*Omphalia*) 21.
sphagnophilus (*Hygrophorus*) 28.
sphalerocondra (*Puccinia*) 346.
sphinctrinoides (*Didymella*) 657.
Sphyriopsisidis (*Laboulbenia*) 923.
spicularum (*Cintractia*) 479.
spinicola (*Pleospora*) 749.
spinosella (*Pleospora*) 755.
spinulosa (*Ravenelia*) 404.
Spirææ (*Læstadia*) 573.
Spirææ (*Lophodermium*) 914.
spiræicola (*Diaporthe*) 669.
Sporastatiæ (*Didymosphaeria*) 681.
Sporastatiæ (*Polycoccum*) 681.
Sporoboli (*Phyllachora*) 839.
spretæ (*Puccinia*) 393.
squamarioides (*Didymosphaeria*) 681.
squamarioides (*Sorothelia*) 681.
squamosa (*Inocybe*) 65.
squarrosa (*Pterula*) 200.
squarrosus (*Cortinarinus*) 81.
Stanfordianus (*Coprinus*) 92.
Starnesii (*Locellina*) 65.
Staudtiana (*Stropharia*) 87.
Staudtii (*Fistulinella*) 101.
Steinii (*Leptosphaeria*) 706.
Steinii (*Leptographis*) 706.
Steinii (*Metasphaeria*) 706.
Stellariæ (*Didymosphaeria*) 676.
stenorrhynchi (*Uromyces*) 258.
Stephanomeriæ (*Puccinia*) 310.
stericola (*Hypomyces*) 805.
stereocaulicola (*Didymosphaeria*) 681.
stereocaulicola (*Microthelia*) 681.
Sterlingii (*Agaricus*) 82.
Sterlingii (*Scleroderma*) 237.
Stigmæ (*Nectria*) 796.
stilbostomum (*Thyridium*) 767.
stillicicola (*Stichomyces*) 917.
Stipæ (*Puccinia*) 469.
stipata (*Odontia*) 156.
stipata (*Solenia*) 146.
stipicola (*Ustilago*) 476.
stipitatus (*Fomes*) 122.
Stizolophi (*Puccinia*) 207.
Stomonaxi (*Laboulbenia*) 923.
straminella (*Odontia*) 158.
straminis (*Coprinus*) 92.
Stratiotis (*Leptosphaeria*) 728.
stratosum (*Radulum*) 154.
stratosus (*Pleurotus*) 24.
striata (*Naucoria*) 71.
striata (*Puccinia*) 398.
striatospora (*Nectria*) 788.
striatula (*Amanita*) 2.
striatula (*Didymosphaeria*) 680.
striatus (*Uromyces*) 471.
strictissimum (*Lachnocladium*) 197.
strobilaceum (*Podaxon*) 219.
strobilina (*Phellorina*) 239.
stromaticola (*Paranectria*) 812.
Struthanthi (*Perinopsis*) 544.
Stübelsii (*Dothidella*) 852.
Stuckerti (*Ceriumyces*) 140.
Stuckerti (*Omphalia*) 22.
Stuckerti (*Puccinia*) 361.
Stuhlmanni (*Asterina*) 881.
Stuhlmanniana (*Meliola*) 548.
Stuhlmanniana (*Zukalia*) 543.
styracicola (*Trametes*) 138.
Styracis (*Microthyrium*) 862.
suaveolens (*Stereum*) 166.
suaveolens-*Cyani* (*Puccinia*) 286.
suavissimus (*Lentinus*) 50.
subalbicans (*Odontia*) 156.
subalbicans (*Thelephora*) 156.

- subalpina (*Didymella*) 656.
 subalpina (*Massarinula*) 658.
 subalpinum (*Coleosporium*) 461.
 subalutacea (*Kneiffia*) 179.
 subalutaceum (*Corticium*) 179.
 subamboinensis (*Fomes*) 124.
 subandina (*Puccinia*) 377.
 subascondita (*Kneiffia*) 177.
 subaurantiacus (*Merulius*) 145.
 subbulbipes (*Polystictus*) 127.
 subcalceum (*Corticium*) 177.
 subcarneus (*Cantharellus*) 35.
 subclavata (*Clitocybe*) 15.
 subcompressa (*Rosellinia*) 598.
 subcompressum (*Platystomum*) 890.
 subconca (*Clitocybe*) 12.
 subcongregata (*Sphaerella*) 642.
 subcongregata (*Sphaerella*) 644.
 subconica (*Nitschkea*) 561.
 subcorticalis (*Didymosphæria*) 679.
 subcorticalis (*Strickeria*) 760.
 subcorticalis (*Teichospora*) 760.
 subcorticicola (*Cordyceps*) 824.
 subcostatum (*Stereum*) 165.
 Subcurreyi (*Marasmius*) 44.
 subdecora (*Puccinia*) 297.
 subdiscoidea (*Cordyceps*) 825.
 subdryophila (*Collybia*) 18.
 subendoxyla (*Cryptovalsa*) 568.
 subfalcata (*Nectria*) 795.
 subfuscum (*Tylostoma*) 222.
 subglobosa (*Puccinia*) 274.
 subgracillima (*Xylaria*) 631.
 subgregarium (*Platystomum*) 890.
 subimpudicus (*Marasmius*) 44.
 subincarnatum (*Æcidium*) 425.
 sublateritius (*Cortinari*) 79.
 subleve (*Corticium*) 171.
 submarginalis (*Cortinari*) 78.
 submegas (*Seynesia*) 867.
 submyochroa (*Volvaria*) 52.
 subnitens (*Puccinia*) 469.
 subochracea (*Cordyceps*) 823.
 subomphaloides (*Marasmius*) 41.
 subpilosus (*Marasmius*) 38.
 subplancus (*Marasmius*) 38.
 subpolyarthra (*Cordyceps*) 822.
 subradicatus (*Polyporus*) 102.
 subradicatus (*Scutiger*) 102.
 subrufescens (*Hygrophorus*) 28.
 subrutulum (*Hypoxylon*) 611.
 subseriata (*Metasphæria*) 704.
 subsinuosa (*Trametes*) 136.
 subsulphurea (*Kneiffia*) 179.
 subsulphureum (*Corticium*) 179.
 subtile (*Hydnum*) 158.
 subtilis (*Psathyrella*) 94.
 subtilissima (*Mortierella*) 507.
 subtrachelina (*Xylaria*) 629.
 subtrifida (*Schizonella*) 488.
 subulatus (*Eleutheromyces*) 779.
 subuliformis (*Protoascus*) 516.
 subunilateralis (*Cordyceps*) 826.
 subviolaceus (*Clitopilus*) 57.
 subviolaceus (*Hygrophorus*) 28.
 subvolvata (*Telamonina*) 78.
 subvolvatus (*Cortinari*) 78.
 subzonatum (*Hydnum*) 148.
 Succisæ (*Leptosphæria*) 726.
 Suckerti (*Bovista*) 234.
 suffusca (*Puccinia*) 359.
 sulcatum (*Ganoderma*) 125.
 sulcatum (*Hypoxylon*) 612.
 sulphuratum (*Stereum*) 165.
 sulphurea (*Collybia*) 16.
 sulphurea (*Flammula*) 70.
 sulphureo-pulverulentus (*Inonotus*) 114.
 sulphureo-pulverulentus (*Polyporus*) 114.
 sulphureum (*Corticium*) 172.
 sulphureus (*Arachnomycetes*) 532.
 Sumstinei (*Grifola*) 108.
 Sumstinei (*Polyporus*) 108.
 superbus (*Marasmius*) 44.
 superflua (*Puccinia*) 338.
 superior (*Pleurage*) 603.
 superior (*Sordaria*) 603.
 superior (*Uredo*) 455.
 superposita (*Pharcidia*) 649.
 superposita (*Verrucaria*) 649.
 superspersa (*Phæospora*) 719.
 superveniens (*Melanthea*) 706.
 superveniens (*Metasphæria*) 706.
 surculorum (*Ophiobolus*) 769.
 surinamensis (*Cordyceps*) 824.
 Suzukianus (*Hymenogaster*) 240.
 Sydowiana (*Puccinia*) 469.
 Symbolanthi (*Uredo*) 442.
 Symphoricarpi (*Gibberidea*) 739.
 Symphoricarpi (*Strickeria*) 761.
 Symphoricarpi (*Teichospora*) 761.
 Symphyti (*Æcidium*) 382.
 Symphyti (*Leptosphæria*) 723.
 Symphyti (*Melampsorella*) 464.
 Symphyti (*Ophiobolus*) 772.

- Symphyti-Bromorum (Puccinia) 469.
Symphyti-Bromorum (Puccinia) 382.
 Synaphæ (Dimerosporium) 535.
Syntherismae (Sorosporium) 486.
 syriaca (Puccinia) 319.
 Syringæ (Enechna) 560.
 systema-solare (Asterina) 880.

 Tachyis (Laboulbenia) 920.
taenioides (Pleurage) 602.
taenioides (Sordaria) 602.
 tagananensis (Puccinia) 309.
 tahitense (Hypoxylon) 612.
 Talpæ (Pleoravenella) 408.
 tamaricina (Diaporthe) 672.
Tamaricis (Polyporus) 111.
Tamaricis (Xanthochrous) 111.
Tamarindi (Mycosphærella) 637.
 Tamarindi (Sphærella) 637.
 tangensis (Hypocrea) 801.
 tangensis (Limacinia) 557.
 Tapesiæ (Sphærella) 646.
 tarapotense (Æcidium) 413.
 tarapotensis (Cordyceps) 823.
 tarapotensis (Parodiella) 542.
 tarapotensis (Uromyces) 252.
 Tarrietæ (Eutypa) 568.
 tartarina (Leptosphæria) 730.
 tartarina (Verrucaria) 730.
 Tasmaniæ (Puccinia) 277.
 tasmanicum (Dimerium) 537.
 tasmanicum (Lycoperdon) 230.
 tasmanicus (Irpe) 153.
 Tassadiæ (Puccinia) 334.
Tassiana (Dothidella) 844.
 Tassianus (Microcyclus) 844.
 tatarica (Puccinia) 394.
 tatrensis (Calvatia) 235.
 Taubertiana (Cintractia) 481.
Taubertiana (Ustilago) 481.
 taurica (Erysiphe) 526.
 Taxodii (Favolus) 142.
Taxodii (Hæwagana) 142.
 taxophilus (Craterellus) 160.
 tecta (Glioniopsis) 911.
 Tellinianum (Æcidium) 420.
 tenerrima (Clavaria) 197.
tenue (Corticium) 179.
 tenue (Hypoxylon) 613.
 tenuior (Xylaria) 633.
 tenuis (Kneiffia) 179.
 tenuistipes (Puccinia) 469.
 tephroleucum (Corticium) 171.
 Tephrosiæ (Pleoravenella) 407.
 tephrosiicola (Uredo) 446.
 Termitum (Pluteus) 55.
 terrestris (Thelephora) 161 et 162.
 terrigenum (Corticium) 170.
tersa (Acrocordia) 711.
 tessellatula (Hexagona) 142.
 tessellatus (Favolus) 142.
 testaceus (Marasmius) 43.
 tetraspora (Eutypella) 565.
 tetraspora (Gibberella) 813.
 tetraspora (Sordaria) 604.
 tetraspora (Trichosphæria) 589.
 Teucrit (Diaporthe) 674.
 Teucrit (Leptosphæria) 725.
 texana (Laboulbenia) 923.
 texana (Puccinia) 355.
 texana (Tilletia) 489.
 texensis (Dictyobole) 213.
 Thalietri (Chætosphæria) 796.
 Thalietri-Elymi (Puccinia) 469.
 thallophila (Müllerella) 583.
 Theæ (Pleospora) 748.
 Theæ (Trametes) 138.
 Thecopsora (Pucciniastrum) 470.
 Theobromæ (Lophodermium) 914.
 Theobromæ (Ophionectria) 816.
 Theresiæ (Uredo) 448.
therophila (Physalospora) 586.
 Thesii-decurrentis (Uredo) 451.
 thlasplanum (Æcidium) 429.
 thomeense (Coleosporium) 397.
 Thornberi (Thecaphora) 487.
 Thuemeniana (Puccinia) 392.
 Thujæ (Amphisphæria) 634.
 Thujæ (Melomastia) 707.
 Thujæ (Mytilidium) 908.
 Thujana (Rebentischia) 732.
 thujinus (Maramius) 43.
 Thwaitesii (Venturia) 651.
 Thymi-Stipæ (Puccinia) 469.
 thyridioides (Anthostomella) 595.
 thyridioides (Platystomum) 889.
Tiarella (Puccinia) 393.
 tigrensensis (Puccinia) 314.
 tigrinus (Polystictus) 128.
 tijucensis (Cyphella) 192.
 Tillæ (Pleospora) 748.
 Tillæ (Valsaria) 691.
 Tillandsiæ (Ustilago) 474.
 Tinctoriæ (Puccinia) 289.

- tingens (*Platystomum*) 890.
 tingitanus (*Uromyces*) 237.
 Tinneæ (*Æcidium*) 417.
 tirolensis (*Venturia*) 651.
 Toffeldiæ (*Lastadia*) 576.
 togoensis (*Penicillioptis*) 528.
 tokyensis (*Puccinia*) 345.
 tomentella (*Kneiffia*) 176.
 tomentosipes (*Marasmius*) 43.
 Tonduzii (*Phyllachora*) 835.
 tonkinensis (*Rhizopus*) 502.
 Toræ (*Æcidium*) 427.
 Torrendii (*Boletus*) 100.
 Torrendii (*Corticium*) 169.
 Torrendii (*Scleroderma*) 236.
 Torulini (*Uredo*) 455.
 tosenis (*Dothidella*) 851.
 tosenis (*Marasmius*) 46.
 tosenis (*Uromyces*) 261.
 tosta (*Puccinia*) 376.
 Toumeyii (*Puccinia*) 392.
 Tozzii (*Entyloma*) 482.
 Trabutiana (*Physalospora*) 579.
 Trabutii (*Uredo*) 452.
 Trachycarpi (*Graphiola*) 493.
 Tracyanum (*Æcidium*) 415.
 tragicola (*Æcidium*) 424.
 Trailii (*Pæcilosporium*) 488.
 Trailii (*Puccinia*) 469.
 Trailii (*Thecaphora*) 488.
 transversarium (*Cauloglossum*) 218.
 Trautvetteriæ (*Puccinia*) 357.
 trematostoma (*Leptosphaeria*) 723.
 tremelloides (*Gymnosporangium*); 462.
 tremula (*Pistillaria*) 202.
 triarticulata (*Puccinia*) 469.
 trichopoda (*Xylaria*) 633.
 trichopterophilus (*Ecteinomyces*) 918.
 tricolor (*Leptonia*) 58.
 tricolor (*Nectria*) 788.
 tricuspidatus (*Herpomyces*) 916.
 Tricuspidis (*Phæodothis*) 854.
 Tricuspidis (*Ustilago*) 475.
 trifidum (*Platystomum*) 890.
 trifidus (*Anthurus*) 214.
 Trifolii (*Leptosphaeria*) 721.
 Trifolii (*Oligidium*) 515.
 Trifolii (*Synchytrium*) 515.
 Trifolii (*Urophlyctis*) 515.
 Triglochinis (*Leptosphaeria*) 728.
 Trigonellæ-occultæ (*Uromyces*) 251.
 trinodulosus (*Ophiobolus*) 772.
 triphracta (*Phæospora*) 718.
 triphractoides (*Endococcus*) 718.
 triphractoides (*Phæospora*) 718.
 triphractus (*Endococcus*) 718.
 Triplasis (*Ustilago*) 473.
 Triplicantis (*Phæospora*) 718.
 Triplicantis (*Trichothecium*) 718.
 triqueter (*Polyporus*) 128.
 triqueter (*Polystictus*) 128.
 Triseti (*Sphaerella*) 646.
 Triseti (*Puccinia*) 376, 469.
 Triseti (*Uredo*) 376.
 trispora (*Zimmermanniella*) 827.
 tristis (*Dacryomyces*) 210.
 tristis (*Hypochnus*) 189.
 tristis (*Psilocybe*) 89.
 Tritici (*Gibberella*) 813.
 Tritici (*Rhizopus*) 504.
 triticina (*Puccinia*) 376, 469.
 triticina (*Uredo*) 376.
 Triticorum (*Puccinia*) 375.
 Tsugæ (*Fomes*) 123.
 Tsugæ (*Ganoderma*) 123.
 tsugina (*Clavaria*) 196.
 tubaracensis (*Dothidea*) 853.
 tuberculata (*Nectria*) 794.
 tuberculata (*Sporormia*) 738.
 tuberculatum (*Tylostoma*) 222.
 tuberculiformis (*Ustilago*) 473.
 tuberiformis (*Echinodothis*) 819.
 tuberosa (*Naucoria*) 71.
 tuberosa (*Psilocybe*) 90.
 Tuberosæ (*Æcidium*) 415.
 tucumanense (*Æcidium*) 391.
 tumida (*Puccinia*) 393.
 tunetanus (*Melanopus*) 106.
 tunetanus (*Polyporus*) 106.
 tunicata (*Thecaphora*) 488.
 turbinata (*Camillea*) 620.
 turgida (*Puccinia*) 323.
 Turneræ (*Æcidium*) 424.
 Turneræ (*Asterina*) 878.
 turrata (*Puccinia*) 353.
 Tussilaginis (*Coleosporium*) 461.
 twerlensis (*Plasmopara*) 520.
 Typhæ (*Athelia*) 174.
 Typhæ (*Corticium*) 174.
 Typhæ (*Didymosphaeria*) 679.
 Typhæ (*Leptosphaeria*) 729.
 Typhæ (*Ophiobolus*) 774.
 Typhinae (*Cucurbitaria*) 764.
 typholoides (*Eucronartium*) 211.

- ufensis* (*Leptoporus*) 115.
ufensis (*Polyporus*) 115.
Uleana (*Cordyceps*) 824.
Uleana (*Hysterostomella*) 892.
Ulei (*Actiniopsis*) 871.
Ulei (*Æcidium*) 421.
Ulei (*Dimerium*) 537.
Ulei (*Dothidella*) 849.
Ulicis (*Ceriospora*) 707.
Ulicis (*Metasphaeria*) 697.
uliginosa (*Naucoria*) 71.
uliginosa (*Puccinia*) 469.
Ulmi (*Corticium*) 169.
Ulmi (*Diaporthe*) 673.
Ulmi (*Mucronella*) 158.
Ulmi (*Mycosphaerella*) 642.
Ulmi (*Sphaerella*) 642.
ultimum (*Pythium*) 518.
umbellatus (*Rhizopus*) 502.
Umbelliferarum (*Charonectria*) 783.
Umbilicarise (*Leptosphaeria*) 731.
Umbilicarise (*Microthelia*) 731.
umbilicata (*Hypocrea*) 801.
umbilicata (*Nectria*) 787.
umbilicatum (*Hydnum*) 147.
umbilicatus (*Clitopilus*) 57.
umbonata (*Collybia*) 16.
umbrina (*Coniophora*) 184.
umbrina (*Coniophorella*) 184.
umbrosus (*Boletus*) 98.
undata (*Poria*) 131.
undatus (*Polyporus*) 131.
Underwoodii (*Fomes*) 117.
Underwoodii (*Pyropolyporus*) 117.
Unedonis (*Antennaria*) 559.
unicaudata (*Ophionectria*) 816.
unicolor (*Peniophora*) 183.
unicolor (*Psilocybe*) 89.
Uredinis (*Oidium*) 397.
Uredinis (*Oospora*) 397.
Uredinis (*Torula*) 397.
uredinoidis (*Æcidium*) 425.
Urticæ (*Metasphaeria*) 702, 703.
Urticæ (*Nectria*) 792.
Usambaræ (*Ravenella*) 404.
usambarense (*Corticium*) 168.
usambarense (*Lachnocladium*) 199.
usambarenensis (*Aleurodiscus*) 168.
usambarenensis (*Blumenavia*) 212.
usambarenensis (*Ustilaginoides*) 492.
ussanguensis (*Hymenochæte*) 167.
utahensis (*Melanopsamma*) 659.
Utriculariæ (*Doassansia*) 481.
utriculicula (*Cintractia*) 479.
utriculosa (*Ustilago*) 473.
Uvariæ (*Microthyrium*) 862.
vagabundus (*Protomyces*) 515.
vagans (*Physalospora*) 581.
Vaginatae (*Puccinia*) 469.
Valdobbiae (*Leptosphaeria*) 726.
Valerianæ (*Puccinia*) 315.
Valerianæ (*Uromyces*) 263.
Valerianæ (*Uromyces*) 263.
valesiacus (*Uromyces*) 252.
Vanillæ (*Nectria*) 790.
Vanillæ (*Physalospora*) 585.
vanillicola (*Nectria*) 790.
vaporaria (*Poria*) 131.
variabile (*Entoloma*) 56.
variabilis (*Microascus*) 610.
variabilis (*Puccinia*) 308.
variabilis (*Siphonaria*) 517.
varians (*Physalospora*) 584.
varians (*Xylaria*) 629.
variegata (*Leptosphaeria*) 722.
varicolor (*Cryphonectria*) 784.
variiporus (*Polyporus*) 101.
vastatrix (*Chlorospora*) 523.
Vaucheriæ (*Rhizophidium*) 512.
velata (*Flammula*) 69.
velatus (*Boletus*) 97.
velatus (*Suillus*) 97.
Velenovskyi (*Tilletia*) 489.
velutina (*Kneiffia*) 178.
velutina (*Peniophora*) 179.
ventricosa (*Pholiota*) 63.
ventricosipes (*Russula*) 31.
venturioides (*Coleroa*) 652.
venustus (*Uromyces*) 247.
Veratri (*Leptosphaeria*) 727.
Verbenæ (*Cronartium*) 461.
verbenicola (*Puccinia*) 469.
Verbesinæ (*Coleosporium*) 397.
Verbesinæ-dentatæ (*Uredo*) 436.
verecunda (*Diaporthe*) 674.
vermiforme (*Hysterium*) 907.
vermispora (*Calonectria*) 811.
vernica (*Daldinia*) 618.
Vernoniæ (*Parmulariella*) 893.
Vernoniæ (*Puccinia*) 272.
vernoniicola (*Phyllachora*) 836.
Veronicæ (*Læstadia*) 575.
Veronicæ (*Puccinia*) 323, 391.

- Veronica* (Uredo) 391.
Veronica-Anagallidis (Puccinia) 349.
Verruciarium (Arthopyrenia) 647.
Verruciarium (Pharcidia) 647.
verrucarioides (Sphaeria) 730.
verrucicola (Læstadia) 576.
verrucicola (Sphaeria) 576.
verrucosa (Nectria) 785.
verrucosaria (Cercidospora) 657.
verrucosaria (Didymella) 657.
verrucosaria (Microthelia) 657.
verrucosella (Asterella) 884.
verrucosus (Hymenogaster) 240.
versicolor (Fomes) 116.
vestita (Eusordaria) 601.
vestita (Pleurage) 604.
vestita (Podospora) 604.
vestita (Puccinia) 285.
vestita (Sordaria) 604.
vestitum (Dimerosporium) 534.
vetusta (Diatrypella) 572.
Via-malæ (Amphisphaeria) 633.
Viburni (Pleospora) 752.
Vicia-Craccæ (Uromyces) 252.
vicinus (Mucor) 493.
Vilfæ (Puccinia) 469.
villis (Puccinia) 375.
Vincetoxici (Plasmopara) 520.
violacea (Poria) 135.
violacea (Tulasnella) 210.
violacea-major (Ustilago) 472.
violaceo-cinereus (Pleurotus) 23.
violaceo-griseus (Cantharellus) 35.
violaceo-pannosa (Xylaria) 727.
Violæ (Asterina) 876.
violascens (Æcidium) 425.
virgatum (Æcidium) 421.
virginalis (Omphalia) 23.
viscosum (Tricholoma) 10.
Vitalbæ (Leptosphaeria) 719.
Vitalbæ (Ophiobolus) 770.
vitellina (Thelephora) 160.
viticicola (Phyllachora) 836.
Viticis-polygamæ (Uredo) 441.
Vitis (Cyphella) 192.
Vitis (Pleospora) 748.
Vitis (Volutella) 192.
Vitis-idææ (Gnomonia) 666.
vitrea (Poria) 131.
vitreus (Polyporus) 131.
Vittadinii (Tylostoma) 222.
Vochysiæ (Phyllachora) 828.
Volkiana (Cordyceps) 827.
volvatus (Cryptoporus) 125.
volvatus (Fomes) 125.
Vossii (Phyllachora) 839.
Vossii (Puccinia) 329.
vulgaris (Delitschia) 687.
vulgaris (Metasphaeria) 698.
vulgaris (Mucor) 498.
Vulpinæ (Puccinia) 469.
vulpinus (Polyporus) 138.
Warmingii (Polystictus) 128.
Warszewiczæ (Lembosia) 899.
Washingtoniæ (Metasphaeria) 703.
Wedeliæ (Æcidium) 410.
Wedeliæ (Uromyces) 245.
Wegeliniana (Leptosphaeria) 725.
Whiteæ (Scutiger) 103.
Whiteæ (Cortinarius) 78.
Whiteæ (Polyporus) 103.
Weinlandii (Xylaria) 622.
Wisseanus (Hypochnus) 187.
Wilcoxiana (Tilletia) 489.
Willemetiæ (Puccinia) 308.
Williamsii (Æcidium) 418.
Williamsii (Sorosporium) 485.
Willoughbyæ (Meliola) 552.
Wilsonii (Favolus) 143.
Wilsonii (Hexagona) 143.
Windsoviæ (Puccinia) 469.
Winteri (Otthiella) 662.
Winteri (Puccinia) 392.
Winteriana (Puccinia) 469.
Wistaræ (Phomatospora) 577.
Wittmackiana (Uredo) 453.
Woodii (Puccinia) 294.
Woodrowii (Agaricus) 83.
Woronini (Chrysomyxa) 397, 460.
Wossnessenskii (Mucor) 499.
Wulfiæ (Æcidium) 412.
Wulfiæ (Uromyces) 245.
Wyethiæ (Puccinia) 296.
Wyethiæ (Uredo) 296.
xantha (Poria) 133.
xantha (Poria) 134.
xanthophæa (Xylaria) 622.
Xanthoriæ (Physalospora) 587.
Xanthoriæ (Sphaeria) 587.
xanthostroma (Cryptonectria) 784.
xanthostroma (Diatrypella) 572.
xanthus (Polyporus) 133.

- xenochæta* (*Pleosphæria*) 763.
Xerotis (*Gioniella*) 904.
Ximenesiæ (*Puccinia*) 275.
xylariicola (*Hypocrea*) 801.
Xylomeli (*Physalospora*) 583.
Xylopiæ (*Micropeltis*) 839.
Xylorrhizæ (*Puccinia*) 296.

Yakutatiana (*Dothidella*) 850.
Yapensis (*Dothidella*) 848.
Yokogureæ (*Puccinia*) 373.
Yoshinagai (*Asterina*) 880.
Yoshinagai (*Exobasidium*) 190.
Yoshinagai (*Melampsora*) 264.
Yoshinagai (*Uromyces*) 251.
yucatensis (*Fomes*) 116.
yucatensis (*Pyropolyporus*) 116.
Yuccæ (*Allantonectria*) 778.
Yuccæ (*Dothidea*) 855.
Yuccæ (*Phæodothis*) 855.
Yuccæ (*Sphærella*) 644.
yurimaguensis (*Uredo*) 454.
yurimaguensis (*Uromyces*) 251.

zanzibarinus (*Herpomyces*) 916.
Zauschneriæ (*Puccinia*) 348.
Zelkowæ (*Eutypella*) 566.
Zenkeri (*Boletus*) 98.
Zenkeri (*Lachnocladium*) 199.
Zenkeri (*Lactariopsis*) 30.
Zenkeri (*Phæohygrocybe*) 82.
Zenkeri (*Pholiota*) 64.
Zenkeri (*Polystictus*) 126.
Zenkeri (*Scleroderma*) 236.
Zenkeriana (*Naucoria*) 72.
Zephyranthis (*Æcidium*) 435.
Zimmermanni (*Corticium*) 169.
Zimmermanniana (*Hypocrella*) 817.
Zimmermanniana (*Puccinia*) 336.
Zinniæ (*Puccinia*) 282.
Ziziphoræ (*Puccinia*) 330.
Zizyphi-vulgaris (*Uredo*) 444.
Zœgeæ-crinitæ (*Puccinia*) 296.
zonatum (*Ganoderma*) 122.
zonatus (*Fomes*) 122.
Zoysiæ (*Puccinia*) 375.
-

INDEX ALPHABETICUS GENERUM

Absidia 504.
 Acallomyces 917
 Acanthostigma 712
 Acerbia 768
 Acerbiella 768
 Achlya 518
 Acompsomyces 917
 Actiniopsis 871
 Actinomucor 498
 Æcidium 410
 Agaricus 82.
 Allantonectria 778.
 Amanita 1
 Amphispheeria 688
 Anixia 580
 Annularia 53
 Antennaria 559
 Anthostoma 685
 Anthostomella 594
 Anthurus 214
 Apiospora 658
 Apiosporium 580
 Arachnomyces 582
 Ascopolyporus 819
 Asterella 882
 Asteridiella 885
 Asteridium 884
 Asterina 875
 Asterophlyctis 517
 Auerswaldia 811
 Aulographum 895.

Balansia 821
 Balansiella 821

Battarrea 224
 Battarreopsis 223
 Baumiella 708
 Beriesiella 745
 Bertiella 708
 Blumanavia 212
 Bolbitius 74
 Boletus 95
 Bornetina 193
 Botryosphæria 590
 Bovista 234
 Bresadolella 797
 Bresadolia 140
 Brigantiella 889
 Broomella 813
 Bulliardella 902
 Burrillia 479

Cæoma 458
 Calonectria 809
 Calosphæria 561
 Calospora 717
 Calvatia 234
 Camillea 620
 Cantharellus 34
 Capnodiella 621
 Capnodiopsis 555
 Capnodium 555
 Catharinia 748
 Cauloglossum 218
 Ceraimyces 918
 Ceratosphæria 716
 Ceratostoma 609
 Ceratostomella 592

Ceriomyces 140
 Ceriosporella 707
 Cesatiella 808
 Chætomium 600
 Chætosphæria 786
 Charonectria 782
 Chilonectria 779
 Chlorospora 523
 Choanophora 507
 Chrysomyxa 896. 460
 Chytridium 513
 Cintractia 479
 Circinella 501
 Cladochytrium 514
 Cladoderris 163
 Clastopsora 263
 Clathrus 213
 Claudopus 61
 Clavaria 193
 Claviceps 820
 Clitocybe 11
 Clitopilus 57
 Clypeosphæria 782
 Coccodiscus 860
 Cœlosphæria 560
 Coleosporium 397. 460
 Collybia 15
 Coniophora 182
 Coniophorella 183
 Coprinus 90
 Coprolepa 608
 Corallomyces 807
 Cordyceps 822
 Coreomyces 924

- Corethromyces** 917
Corticium 168
Cortinarius 77
Coutinia 589
Craterellus 160
Crepidotus 76
Cronartium 461
Crotonocarpia 746
Cryphonectria 738
Cryptoderis 768
Cryptoporus 125
Cryptospora 776
Cryptosporella 592
Cryptovalsa 567
Cucurbitaria 764
Cunninghamella 508
Curreya 858
Cyathus 214
Cycloschizon 896
Cyphella 191
Cystopus 519

Daeryomyces 210
Daedalea 189
Daldinia 616
Darwiniella 856
Debaryella 809
Delitschia 686
Delitschiella 688
Dendrogaster 240
Diaporthe 667
Dichæna 894
Dictyobole 218
Dictyocephalus 238
Didymella 658
Didymosphæria 676
Dielsiella 902
Dilophia 767
Dimerium 587
Dimeromyces 915
Dimerosporiopsis 686
Dimerosporium 533
Diorchidium 394
Diploderma 229
Disciseda 238
Doassansia 481
Dothidea 852

Dothidella 846
Drepanoconis 519
Eccilia 60
Echinodothis 819
Ecteinomyces 918
Eiasmomyces 218
Eleutheromyces 779
Enchnoa 560
Enchnosphæria 713
Endobasidium 190
Endophyllum 263
Endothia 675
Endoxyla 570
Englerula 529
Entoioma 55
Entomophthora 510
Entyloma 482
Eomycenella 21
Eriosphæria 659
Erysiphe 526
Eucronartium 211
Eurotium 527
Euryachora 841
Eutypa 568
Eutypella 565
Exidia 207
Exobasidium 190

Favolus 141
Fenestella 766
Feracia 815
Fistulinella 101
Flammula 68
Fleischeria 819
Fomes 116

Gaillardiella 686
Galera 75
Gastrosporium 243
Geaster 226
Geasteropsis 229
Gibbera 662
Gibberella 813
Gibberidea 739
Glomerella 573
Glomerula 509
Gloniella 908

Gloniopsis 909
Glonium 896
Gnomonia 664
Gnomoniopsis 716
Gomphidius 94
Grandinia 154
Graphiola 493
Graphyllum 913
Guepinia 206
Gymnoconia 895
Gymnosporangium 271.
461

Hapalographium 402
Harpochytrium 512
Hebeloma 66
Helicostylum 505
Henningsomyces 689
Henriquesia 894
Herpomyces 915
Herpotrichia 714
Heterochaete 209
Hexagonia 138
Hirneolina 208
Homostegia 857
Hyaloderma 529
Hyalospora 268
Hydnum 147
Hygrophorus 26
Hymenochaete 166
Hymenogaster 239
Hypholoma 88
Hypochnus 184
Hypocopa 605
Hypocrea 800
Hypocrella 817
Hypodermopsis 908
Hypomyces 808
Hypoxylon 610
Hypoxylopsiis 855
Hysterium 907
Hysterographium 912
Hysteropsis 909
Hysterostomella 892

Inocybe 65
Irpex 158

Ithyphallus 212

Jattaea 562

Kalmusia 742

Kneiffia 176

Kordyanella 159

Kretzschmaria 615

Kusanobotrys 881

Laboulbenia 918

Lachnocladium 197

Lactariopsis 80

Lactarius 29

Læstadia 578

Lagenidium 516

Laschia 144

Lasiosphaeria 718

Lembosia 897

Lentinus 48

Lentodiopsis 47

Lentomita 663

Lenzites 52

Lepiota 3

Leptonia 58

Leptosphaeria 719

Leptosphaeriopsis 731

Leptosphaerulina 746

Leucogaster 240

Limacinia 556

Linospora 775

Lisea 806

Lizoniella 661

Locellina 65

Lophiella 886

Lophosphæra 886

Lophiostoma 887

Lophiotrema 887

Lophium 914

Lophodermium 913

Lycogalopsis 242

Lycoperdon 229

Lysurus 215

Magnusia 531

Marasmius 88

Massaria 732

Massariella 688

Maurodothis 856

Mazzantia 828

Megalonectria 815

Melampsora 264. 462

Melampsorella 266. 464

Melampsoridium 464

Melanomma 733

Melanconiella 691

Melanconis 667

Melanopsamma 658

Melanopsichium 484

Malanospora 781

Melomastia 707

Merulius 145

Metasphaeria 695

Michenera 217

Microascus 610

Microcycilus 844

Micropeltis 868

Microsphaera 525

Microthyrium 862

Mitremyces 225

Moelleriella 780

Moelleroclavus 634

Monoicomycetes 915

Montagnites 95

Mortierella 506

Mucor 494

Mucronella 158

Müllerella 593

Mycena 18

Mycosphaerella 649

Mycosyninx 484

Myriocopron 861

Myriogenospora 859

Myrmæcium 675

Mytilidium 908

Næmatelia 205

Naucoria 71

Nectria 784

Nectriella 778

Neopeckia 686

Neoravenelia 408

Neorehmia 536

Nidula 215

Nidularia 216

Nitschkea 561

Nolanea 59

Nowakowskiella 514

Nummularia 618

Odontia 156

Ohleriella 736

Oipidiopsis 511

Oipidium 511

Omphalia 21

Ophiobolus 769

Ophiodothis 859

Ophiognomonina 776

Ophionectria 815

Ophiopeltis 873

Ophiotheca 774

Orbicula 583

Otthia 688

Otthiella 662

Panæolus 93

Panus 50

Paranectria 812

Parasitella 501

Parmulariella 892

Parodiella 541

Paurocotylis 243

Paxillus 81

Packiella 780

Peltosphaeria 744

Pemphidium 865

Penicillliopsis 528

Peniophora 175

Peridermium 408

Perisporina 545

Perisporiopsis 544

Perisporium 544

Peroneutypa 569

Peroneutypella 569

Peronospora 520

Phacopsora 267

Phæodothis 854

Phæohygrocybe 81

Phæopterula 201

Phæosaccardinula 87

Phæoscutella 872

Phæosolenia 147

- Phæosphærella* 675
Phæospora 718
Pharcidia 646
Phellorina 239
Philocopa 606
Phlebia 155
Pholiota 62
Phomatospora 577
Phragmidium 398
Phragmographium 906
Phyllachora 829
Phyllactinia 524
Physalacria 208
Physalospora 579
Physoderma 518
Pilobolus 505
Piptocephalis 508
Pistillaria 201
Plasmopara 520
Platyglœa 204
Platystomum 889
Pleomassaria 759
Pleomeliola 554
Pleonectria 814
Pleoravenella 407
Pleosphaeria 763
Pleosphaerulina 743
Pleospora 747
Pleuroascus 582
Pleurotus 28
Plowrightia 845
Pluteolus 74
Pluteus 53
Podaxon 219
Podocrea 799
Polyporus 101
Polysaccum 287
Polystictus 126
Polystigma 780
Polystomella 865
Poria 131
Poronia 620
Proabsidia 500
Protoascus 516
Prothydnum 153
Psathyra 90
Psathyrella 94
Pseudographis 905
Pseudovalsa 740
Psilocybe 89
Pterulia 199
Puccinia 272, 464
Pucciniastrum 401, 470
Pyrenophora 757
Pyrrhosorus 516
Pythium 518

Radulum 153
Ravenelia 403
Rebentischia 732
Rhachomyces 917
Rhizoclostridium 516
Rhizophidium 512
Rhizopus 502
Rhopoglyphus 857
Rhynchonectria 798
Rhynchosphæria 740
Rhynchostoma 689
Rimbackia 38
Rinia 591
Roestelia 409
Rosellinia 595
Rosenscheldia 852
Rostrella 609
Ruhlandiella 241
Russula 30

Saccardomyces 580
Saccoblastia 203
Saprolegnia 518
Schizospora 396
Schizostoma 887
Schizothyrium 893
Schulzeria 8
Sclerangium 287
Scleroderma 235
Sclerospora 520
Scolecopeltis 874
Sebacina 208
Secotium 217
Septobasidium 203
Seuratia 558
Seynesia 865
Siphonaria 517

Solenia 146
Solanoplea 619
Sordaria 601
Sorosporium 434
Spegazzinula 808
Sphacelotheca 486
Sphærella 635
Sphærobolus 216
Sphæroderma 781
Sphærostilbe 798
Sphærostilbella 778
Sphærotheca 524
Sphærulina 693
Spinalia 510
Spolverinia 577
Sporodinia 505
Sporophlyctis 517
Sporormia 737
Spumatoria 663
Squamotubera 621
Stereum 163
Stichomyces 917
Stichopsora 395
Stigmatæa 649
Stigmatula 578
Stilboxylon 623
Strobilomyces 101
Stropharia 85
Syncephalls 508
Synchytrium 518

Teichospora 760
Teichosporella 744
Thecaphora 487
Thlephora 160
Thyridaria 741
Thyridium 767
Tichothecium 676
Tieghemella 504
Tilletia 439
Tolyposporella 491
Tolyposporium 490
Torrendia 241
Torrubiella 816
Trabutia 587
Tracya 491
Trametes 196

Index alphabeticus generum.

Trematosphaeria 734
 Trematosphaeriopsis 735
 Tremella 205
 Tremellodendron 208
 Tremellopsis 193
 Tricholoma 9
 Trichopeltis 871
 Trichosphaeria 588
 Triphragmium 402
 Trogia 37
 Tryblidiella 908
 Tubaria 76
 Tulasnella 209
 Tylostoma 220
 Typhula 201
 Uleopeltis 872

Ulocolla 207
 Uncinula 524
 Uredinopsis 269
 Uredo 436
 Urocystis 491
 Uromyces 244, 470
 Urophlyctis 515
 Ustilaginoidea 492
 Ustilago 472

Valsa 562
 Valsaria 691
 Valsella 567
 Venturia 650
 Vizella 861
 Volvaria 52

Wallrothiella 587
 Winterina 708

Xerotus 51
 Xylaria 622
 Xylobotryum 690
 Xyloceras 690
 Xylopodium 288

Yoshinagala 860

Zaghouania 268
 Zignoella 709
 Zimmermanniella 827
 Zukalia 548
 Zukaliopsis 554.

